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COLLEGE BULLETINS
ISSUED QUARTERLY. Vol. 17, No. 1
MAY, 1917

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CATALOG
OF THE
AGRICULTURAL COLLEGE
OF UTAH
FOR
1917-1918

RP

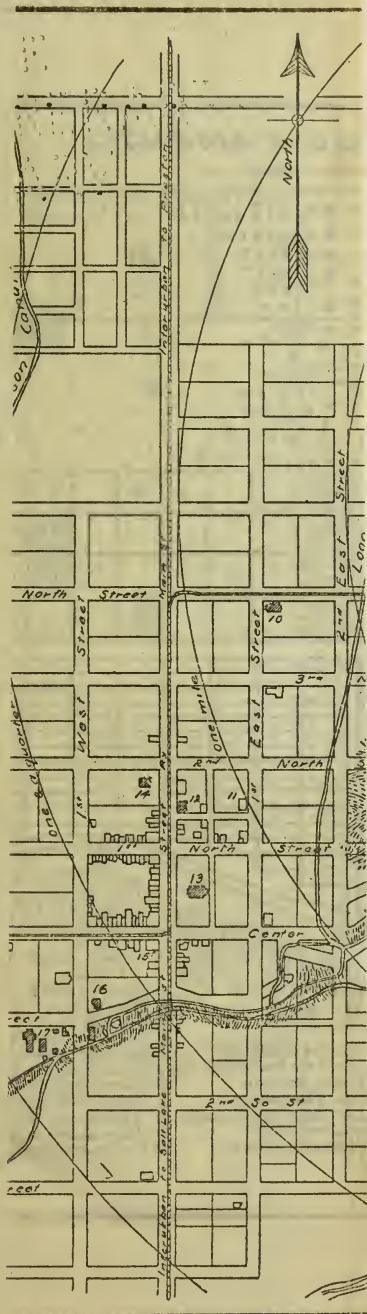


ENTERED AS SECOND CLASS MATTER, JULY 8, 1901
AT THE POST OFFICE, LOGAN, UTAH
UNDER THE ACT OF JULY 16, 1894

Approximate Vocational Distribution of Alumni

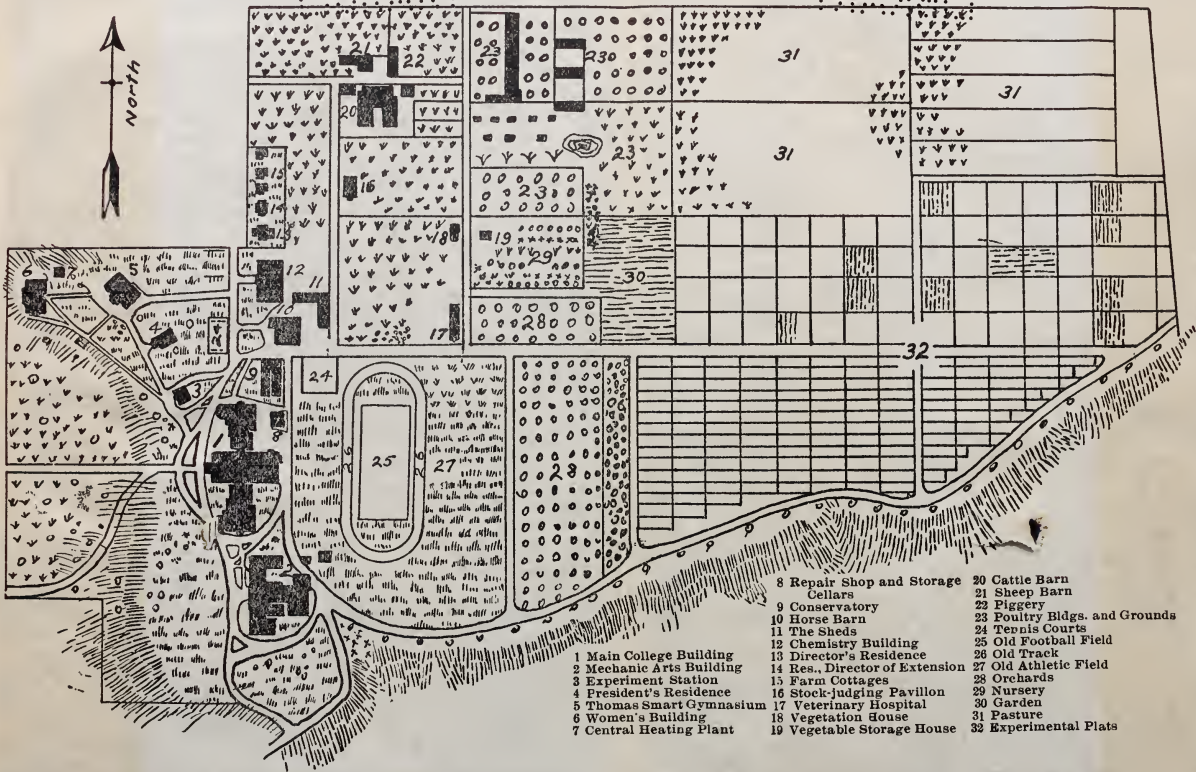
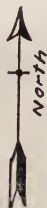
(Class of 1917 not Included)

Agriculture—	
Farming	62
Agricultural Experts.....	33
Teaching Agriculture.....	119
Heads of Experiment Stations.....	1
Government, U. S.—	
Forestry	8
Irrigation	7
Agricultural Experts.....	13
Commerce—	
Banking	4
Business	54
Teaching Commerce.....	18
Clerical	5
Home Economics—	
Home making.....	58
Teaching Home Economics.....	70
General Science—	
Teaching	49
Medicine	5
Law	4
Doing Graduate Work.....	37
Mechanic Arts.....	8
Presidents of Colleges.....	2
Superintending Schools.....	21
Engineering	11
On Missions.....	6
Vocation Not Known.....	44
<hr/>	
Total	639
Deceased	11
<hr/>	
Total	650



PLAN of COLLEGE CAMPUS

R. VanLeuven Mar. 1916

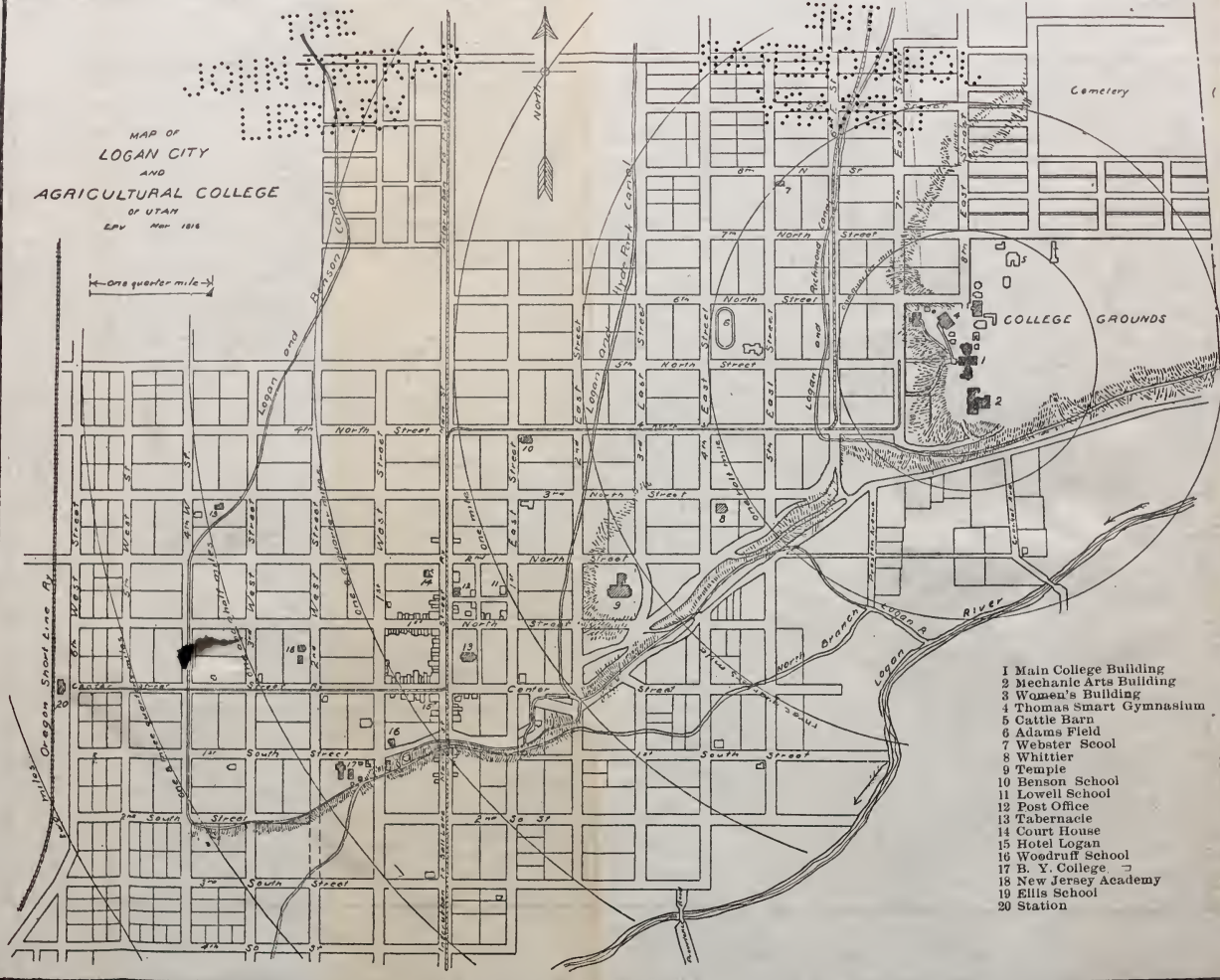


- | | | |
|--------------------------|--------------------------------|-------------------------------|
| 1 Main College Building | 8 Repair Shop and Storage | 20 Cattle Barn |
| 2 Mechanic Arts Building | 9 Cellars | 21 Sheep Barn |
| 3 Experiment Station | 10 Conservatory | 22 Piggery |
| 4 President's Residence | 11 Horse Barn | 23 Poultry Bldgs. and Grounds |
| 5 Thomas Smart Gymnasium | 12 The Sheds | 24 Tennis Courts |
| 6 Women's Building | 13 Chemistry Building | 25 Old Football Field |
| 7 Central Heating Plant | 14 Director's Residence | 26 Old Track |
| | 15 Res., Director of Extension | 27 Old Athletic Field |
| | 16 Farm Cottages | 28 Orchards |
| | 17 Stock-judging Pavilion | 29 Nurseries |
| | 18 Veterinary Hospital | 30 Garden |
| | 19 Vegetation House | 31 Pasture |
| | | 32 Experimental Plots |

MAP OF
LOGAN CITY
AND
AGRICULTURAL COLLEGE
OF UTAH

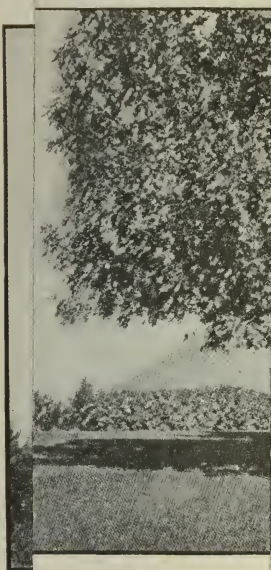
REV. MAR. 1918

← One quarter mile →



- 1 Main College Building
- 2 Mechanic Arts Building
- 3 Women's Building
- 4 Thomas Smart Gymnasium
- 5 Cattle Barn
- 6 Adams Field
- 7 Webster School
- 8 Whittier
- 9 Temple
- 10 Benson School
- 11 Lowell School
- 12 Post Office
- 13 Tabernacle
- 14 Court House
- 15 Hotel Logan
- 16 Woodruff School
- 17 B. V. College
- 18 New Jersey Academy
- 19 Ellis School
- 20 Station





MAIN BUILDING AND



STREET SCENE IN

THE
LOGAN
LIBRARY



UTAH AGRICULTURAL COLLEGE, LOGAN, UTAH

MAIN BUILDING AND GROUNDS



LOGAN, UTAH

STREET SCENE IN LOGAN

CATALOG
OF THE
AGRICULTURAL COLLEGE
OF UTAH
1917-1918

TWENTY-EIGHTH YEAR



With List of Students for 1916-1917

LOGAN, UTAH

Published by the College

May, 1917

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Withdrawn

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College Calendar, 1917-18.

FALL TERM

September 10, Monday	Entrance examinations. Registration of former students, and new students admitted on certificates.
September 11, Tuesday	Classes organized.
November 9, Friday	Agricultural Club Ball.
November 29, Thursday	Thanksgiving Recess. Fall term ends.

WINTER TERM

December 3, Monday	Winter term begins.
December 11, Tuesday	Oratorical Contest for the Medal given by The Sons of the American Revolution.
December 14, Friday	Debate Try-outs.
December 14, Friday	Fraternity Melee.
December 22, Saturday	Christmas Recess begins.
January 7, Monday	Work resumed.
January 14 to 26	Exhibition of Arts and Crafts by Utah Artists.
January 21, Monday	College Play.
January 25, Friday	Alumni Ball.
February 1, Friday	Commercial Club Ball.
February 12, Tuesday	Lincoln's Birthday.
February 19, Tuesday	Oratorical Contest for the Hendricks Medal.
February (date undecided)	Military Ball.
February 22, Friday	Washington's Birthday.
March 8, Friday	Winter term ends.

SPRING TERM

March 11, Monday	Spring term begins.
March 15, Friday	Theta Ball.
March 19, Tuesday	Oratorical Contest for the Casto Medal.
March 27, Wednesday	College Opera.
March 29, Friday	Junior Promenade.
April 6, Saturday	Freshman Play.
April 15, Monday	Arbor Day.
April 29, Monday	"A" Day.
May 14, Tuesday	Senior Chapel.
May 18, Saturday	May Festival.
May 21, Tuesday	Conferring of scholarships and other honors.
June 2, Sunday	Baccalaureate Sermon.
June 3, Monday	Class Day.
June 3 and 4	Summer School registration.
June 4, Tuesday	Commencement and Alumni Ball.

ANNUAL FARMERS' CONVENTIONS AND HOUSEKEEPERS' CONFERENCES

- Southern Utah, Richfield—Monday, January 14 to Saturday, January 19.
- U. A. C., Logan—Monday, January 21 to Saturday, January 26.
- Southwestern Utah, Cedar City—Monday, February 4 to Saturday, February 9.

Board of Trustees

LORENZO N. STOHL.....	Salt Lake City, Utah
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JOHN DERN.....	Salt Lake City, Utah
JOHN C. SHARP.....	Salt Lake City, Utah
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A. W. IVINS.....	Salt Lake City, Utah
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A. G. BARBER.....	Logan, Utah
FRANK B. STEPHENS.....	Salt Lake City, Utah
HARDEN BENNION, Secretary of State, ex-officio.....	Salt Lake City

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A. W. IVINS.....	Vice-President
JOHN L. COBURN.....	Secretary and Treasurer

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Committee on Agriculture—A. G. Barber, John C. Sharp, Angus T. Wright.

Committee on Mechanic Arts—John Dern, Harden Bennion, Angus T. Wright.

Committee on Agricultural Engineering—George T. Odell, J. W. Knight, F. B. Stephens.

Committee on Home Economics—Elizabeth C. McCune, Lois Hayball, John Dern.

Committee on Commerce—Angus T. Wright, F. B. Stephens, Elizabeth McCune.

Committee on Experiment Station—A. W. Ivins, J. W. Knight, Lois Hayball.

Committee on Extension Work—Lois Hayball, George T. Odell, Harden Bennion.

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Committee on Buildings and Grounds—Angus T. Wright, George T. Odell, A. G. Barber, Lois Hayball, John Dern.

Committee on Power, Heat and Light—John Dern, John C. Sharp, Angus T. Wright, A. G. Barber, Harden Bennion.

Committee on Branch at Cedar City—J. W. Knight, John C. Sharp, Elizabeth C. McCune.

Committee on Legislation and Finance—Harden Bennion, F. B. Stephens, John C. Sharp, George T. Odell, A. G. Barber.

Officers of Administration and Instruction*

The College Faculty

(Arranged in Groups in the Order of Seniority of Appointment)

ELMER GEORGE PETERSON, A. M., Ph. D.
President

GEORGE WASHINGTON THATCHER, B. S.
Professor of Music

WILLIAM PETERSON, B. S.
Professor of Geology

HYRUM JOHN FREDERICK, D. V. M.
Professor of Veterinary Science

FRANK RUSSELL ARNOLD, A. M.
Professor of Modern Languages

JAMES CHRISTIAN HOGENSON, M. S. A.
State Leader, Junior Vocational Extension

JOHN THOMAS CAINE, JR., B. S.
Auditor

JOHN THOMAS CAINE, III, M. S. A.
Director, Extension Division

FRANKLIN LORENZO WEST, Ph. D.
Director, School of General Science
Professor of Physics

FRANKLIN STEWART HARRIS, Ph. D.
Director, Experiment Station
Professor of Agronomy

BLANCHE COOPER, B. S.
Assistant State Leader, Junior Vocational Extension

*The College Council consists of the President and all members of the Faculty with the rank of Professor, Associate Professor, or Assistant Professor.

AGRICULTURAL COLLEGE OF UTAH

JOSEPH EAMES GREAVES, M. S., Ph. D.
Professor of Bacteriology and Physiological Chemistry

CALVIN FLETCHER, B. Pd.
Professor of Applied Art

RAY BENEDICT WEST, C. E.
Director, Schools of Agricultural Engineering and Mechanic Arts
Professor of Agricultural Engineering

ROBERT JAMES EVANS, Ph. D.
Assistant Director, Extension Division
County Agent Leader, Extension

GEORGE RICHARD HILL, JR., Ph. D.
Director, School of Agriculture
Professor of Botany and Plant Pathology

JAMES HENRY LINFORD, D. Did.
Director, Summer School
Superintendent, Correspondence-Study Department

ARTHUR HERBERT SAXER, M. S., Ph. D.
Acting Director, School of Home Economics
Professor of Mathematics

NIELS ALVIN PEDERSEN, A. M.
Professor of English

WILLIAM ERNEST CARROLL, M. S., Ph. D.
Professor of Animal Husbandry

CHARLES WALTER PORTER, A. M., Ph. D.*
Director, School of Home Economics
Professor of Chemistry

GEORGE B. HENDRICKS, A. M.
Director, School of Commerce and Business Administration
Professor of Finance and Banking

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Professor of Accounting
Registrar

FRANKLIN DAVID DAINES, A. M.
Professor of History

*On leave.

EUGENE SANTSCHI, JR., B. S., Captain U. S. A.
Professor of Military Science and Tactics

JONATHAN SOCKWELL POWELL
Professor of Fine Art

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Professor of Domestic Art

GERTRUDE McCHEYNE, B. S.
Professor of Home Economics, Extension

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Secretary and Treasurer of the College and Purchasing Agent
Graduate Manager of Athletics

JOHN WESLEY WATSON, B. S.
Director of Athletics

RALPH ORLANDO PORTER, B. S., M. D.
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Medical Supervisor of Students

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Professor of Zoology and Entomology

ALICE RAVENHILL, F. R. S. I.
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Professor of Horticulture

LIZZIE McKAY HILL, B. S.
Women's Adviser

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Associate Professor of Mechanic Arts

AARON NEWBY, B. S.
Associate Professor of Forging

LE GRANDE HUMPHERYS, B. S.
Associate Professor of Farm Mechanics

GEORGE BALLIF CAINE, A. M.
Associate Professor of Dairying

*On leave.

AGRICULTURAL COLLEGE OF UTAH

ORSON WINSO ISRAELSEN, M. S.
Associate Professor of Irrigation and Drainage

CHARLES ROBERT JOHNSON
Associate Professor of Music

J. EDWARD TAYLOR, B. S.
Farm Help Specialist, Extension

BYRON ALDER, B. S.
Assistant Professor of Poultry Husbandry

EDWARD PARLEY PULLEY, B. S.
Assistant Professor of Mechanic Arts

VINCENT HOLLAND OGBURN, Ph.B., A. M.
Assistant Professor of English

CHARLES TARRY HIRST, M. S.
Assistant Professor of Chemistry

WILLIAM SPICKER
Assistant Professor of Music

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LORIN ASA MERRILL, B. S.
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JAMES W. PAXMAN
Assistant Professor of Dry-Farming, Extension

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Assistant Professor of Economics

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Assistant Professor of History

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Assistant Professor of Farm Management, Extension

HEBER JARVIS WEBB, B. S.

Assistant Professor of Farm Management, Extension

GEORGE STEWART, M. S.

Assistant Professor of Agronomy

JOHANNA MOEN

Assistant Professor of Domestic Art

MARK HINDLEY GREENE, M. S.

Field Agent in Marketing, Extension

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Assistant Professor Physical Education

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Assistant Professor of Agronomy

JEAN COX, B. S.

Assistant Professor of Foods and Dietetics

HAROLD RAYMOND HAGAN, M. S.

Assistant Professor of Entomology

JOSEPH R. JENSEN, A. B.

Assistant Professor of Physical Education

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Assistant Professor Farm Management, Extension

JAMES CLAYBORN THOMAS, B. S.

Assistant Professor of Chemistry

LOWRY NELSON, B. S.

Secretary to the President

JOSEPH DEVONALD HOWELL, F. S. S. A.

Instructor in Stenography and Typewriting

*On leave.

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Instructor in Agronomy

Instructor in Band

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Instructor in Zoology

WILBUR EVANS THAIN, B. S.
Instructor in Accounting

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Instructor in Farm Management, Extension

HETTIE WHITE, B. S.
Instructor in Home Economics, Extension

LAVINIA RICHARDSON, B. S.
Instructor in Domestic Art

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Instructor in Farm Management, Extension

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Instructor in Farm Management, Extension

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Instructor in Botany

HATTIE SMITH
Acting Librarian

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Instructor in Botany

EDLEF EDLEFSEN, B. S.
Instructor in Physics

EZRA G. CARTER, B. S.
Instructor in Bacteriology

HANS P. ANDERSON, B. S.
Instructor in Bacteriology

CLYDE W. LINDSAY, B. S.
Instructor in Farm Management, Extension

WILLIAM WHITE OWENS, B. S.
Instructor in Farm Management, Extension

ALMA ESPLIN, B. S.
Instructor in Farm Management, Extension

ORSON PERRY MADSEN, B. S.
Instructor in Poultry Husbandry

BRYANT BULLEN, B. S.*
Assistant Farm Management Demonstrator

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Instructor in Entomology

WALLACE SULLIVAN, B. S.
Instructor in Farm Management, Extension

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Instructor in Horticulture

JERRY J. COLLINS, Q. M. Sergeant, U. S. A. Retired
Instructor in Military Science and Tactics

JOHN HYRUM WITTWER, B. S.
Instructor in Farm Management, Extension

HORACE R. ARGYLE, B. S.
Instructor in Farm Management, Extension

DAN ARTHUR SWENSON, B. S.
Assistant in Woodwork

SETH LANGTON BARBER, B. S.
Assistant, Department of Economics and Secretary's Office

HORTENSE WHITE, B. S.
Assistant, Home Economics, Extension

*On leave.

AGRICULTURAL COLLEGE OF UTAH

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Assistant County Agent

DAVID HUGHES

Assistant in Woodwork

MILDRED DANIELS

Assistant in Dressmaking

ABBY GROESBECK

Assistant, Registrar's Office

IDA R. MITCHELL

Clerk, Extension Division

O. BLANCHE CONDIT, A. B.

Clerk, Experiment Station

CHARLES BATT

Superintendent of Water, Heat, Sewerage, and Lighting Plant

RASMUS OLUF LARSEN

Superintendent of Buildings

EMIL HANSEN

Superintendent of Grounds and Greenhouses

Standing Committees

1917-1918

The President of the College is *ex-officio* a member of each standing committee.

1. *Practical Courses*—Professors Wm. Peterson, Saxer, Richards, Mr. Sorenson.

2. *Graduation*—Professors Saxer, Carroll, Fletcher, Greaves, Cox.

3. *College Publications*—Professors Pedersen, Arnold, Robinson, Ogburn, Huntsman.

4. *Attendance and Scholarship*—Professors Henderson, Linford, Santschi, Frederick, Brooke.

5. *Student Affairs*—Professors Brooke, Powell, Kyle, Linford, R. O. Porter, Mrs. Hill, Mrs. Johnson.

6. *Athletics*—Professors F. L. West, Humpherys, Watson, Coburn, G. B. Caine, Mrs. Johnson.

7. *Publicity*—Professors Arnold, Alder, Huntsman, Richards, Robinson, Hagan.

8. *Exhibits*—Professors John T. Caine III, Fletcher, Merrill, Hansen, Moen, Israelsen.

9. *Entrance Examinations*—Professors Daines, Humpherys, Hirst,

10—*Debating*—Professors Pedersen, C. W. Porter, Hendricks, Ogburn, Daines, Miss Smith.

11. *Student Employment*—Professors Merrill, Greaves, Saxer, Powell, Newey, Mrs. Johnson.

12. *Student Body Organization*—Professors Harris, R. B. West, Carroll.

13. *Graduate Employment*—Professors Hill, Harris, F. L. West, C. W. Porter.

14. *Schedule*—Professors F. L. West, C. W. Porter, Saxer.

15. *Lyceum Course*—Professors Hendricks, C. R. Johnson, Spicker, Arnold, Pedersen, Coburn.

16. *Graduate Work*—Professors Harris, F. L. West, Merrill, Ravenhill.

17. *Editor of Catalog*—Professor Pedersen.

Experiment Station Staff

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F. S. HARRIS, Ph. D.....	Director and Agronomist
WILLIAM PETERSON, B. S.....	Consulting Geologist
H. J. FREDERICK, D. V. M.....	Veterinarian
F. L. WEST, Ph. D.....	Meteorologist
W. E. CARROLL, Ph. D.....	Animal Husbandman
J. E. GREAVES, Ph. D.....	Bacteriologist and Chemist
BYRON ALDER, B. S.....	Poultryman
G. R. HILL, JR., Ph. D.....	Plant Pathologist
O. W. ISRAELSEN, M. S.....	Irrigation and Drainage
M. C. MERRILL, A. M., Ph. D.....	Horticulturist
W. W. HENDERSON, M. S. A.....	Entomologist
C. T. HIRST, M. S.....	Associate Chemist
H. R. HAGAN, M. S.....	Associate Entomologist
GEORGE STEWART, M. S.....	Assistant Agronomist
HOWARD J. MAUGHAN, B. S.....	Assistant Agronomist
E. G. CARTER, B. S.....	Assistant Bacteriologist
B. L. RICHARDS, B. S.....	Assistant Plant Pathologist
D. W. PITTMAN, M. S.....	Assistant Agronomist
N. I. BUTT, B. S.....	Assistant Agronomist
H. P. ANDERSON, B. S.....	Assistant Bacteriologist and Chemist
ORSON P. MADSEN, B. S.....	Assistant Poultryman
BERVARD NICHOLS, B. S.....	Assistant Plant Pathologist
TRACY H. ABELL, M. S.....	Assistant Horticulturist
N. E. EDLEFSEN, B. S.....	Assistant Meteorologist
A. O. LARSON, B. S.....	Assistant Entomologist
O. BLANCHE CONDIT, A. B.....	Clerk and Librarian

EXPERIMENT STATION STAFF

CARRIE THOMAS.....	Mailing Clerk
K. B. SAULS.....	Secretary to the Director
In Cooperation with U. S. Department of Agriculture	
L. M. WINSOR, B. S.....	Irrigation
J. W. JONES, B. S.....	Dry-Farming

Extension Division Staff

ADMINISTRATION

E. G. Peterson, A. M., Ph. D.....President of the College
 John T. Caine III, M. S. A.....Director and Animal Husbandman
 R. J. Evans, Ph. D.....Assistant Director and County Agent Leader

SPECIALISTS

H. J. Frederick, D. V. M.....Veterinary Science
 L. M. Winsor, B. S.....Irrigation and Drainage
 Ben R. Eldredge, B. S.....Dairying
 E. B. Brossard, M. S.*.....Farm Management
 J. W. Paxman.....Dry-Farming
 Mark H. Greene, M. S.....Marketing
 J. Edward Taylor, B. S.....Farm Help

COUNTY AGENTS

Lorin A. Merrill, B. S.....Assistant County Agent Leader
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 R. H. Stewart, B. S.....Box Elder County
 H. J. Webb, B. S.....Salt Lake County
 H. A. Christiansen, B. S.....Beaver County
 W. P. Thomas, B. S.....Weber County
 Alma Esplin, B. S.....Iron County
 W. W. Owens, B. S.....Sevier County
 Clyde W. Lindsay, B. S.....Utah County
 Wallace Sullivan, B. S.....Carbon-Emery Counties
 John H. Wittwer, B. S.....Uintah-Duchesne Counties
 Horace R. Argyle, B. S.....San Juan County
 Aaron F. Bracken, B. S.....Summit-Morgan Counties
 Theron Bennion, B. S.....San Pete County
 Robert L. Wrigley, B. S.....Cache County
 Lew Mar Price, B. S.....Assistant, Weber County
 J. W. Watson, B. S.....Assistant, Box Elder County

HOME DEMONSTRATION

Gertrude McCheyne, B. S.....State Home Demonstration Leader
 Hettie White, B. S.....Millard County
 -----Box Elder County
 Hortense White, B. S.....Assistant, Home Economics

BOYS' AND GIRLS' CLUB WORK

J. C. Hogenson, M. S. A.....State Leader
 E. W. Stephens, B. S.....Assistant State Leader
 Blanche Cooper, B. S.....Assistant State Leader

*On leave.

DISTRICT LEADERS

R. E. Brossard, B. S.....	Cache County
A. L. Christiansen, B. S.....	Tooele County
W. J. Glenn, B. S.....	Box Elder County
E. T. Reid.....	Sanpete County
P. J. Saunders.....	Salt Lake City
A. C. Wood.....	Wasatch County
L. D. Briggs.....	Davis County
O. H. Dutton.....	Jordan District
A. Stringham.....	Sevier County

COMMUNITY SERVICE BUREAU

Frank R. Arnold, A. M. (In Charge)

CORRESPONDENCE-STUDY

J. H. Linford, D. Did.....Superintendent

EXTENSION OFFICE

Ida R. Mitchell.....Chief Clerk
Vera Carlson.....Stenographer

COUNTY CHAIRMEN

W. S. Hansen.....	Collinston, Box Elder County
S. O. White.....	Beaver, Beaver County
C. R. Marcussen.....	Price, Carbon County
H. H. Blood.....	Kaysville, Davis County
Lars P. Oveson.....	Castledale, Emery County
James Houston.....	Panguitch, Garfield County
F. B. Hammond.....	Moab, Grand County
L. N. Marsden.....	Parowan, Iron County
A. H. Belliston.....	Nephi, Juab County
Wm. Seegmiller.....	Kanab, Kane County
John Reeve.....	Hinckley, Millard County
Daniel Heiner.....	Morgan, Morgan County
Joseph Ipson.....	Junction, Piute County
G. H. Robinson.....	Laketown, Rich County
R. D. Young.....	Richfield, Sevier County
L. R. Anderson.....	Manti, Sanpete County
L. H. Redd.....	Blanding, San Juan County
Moses W. Taylor.....	Coalville, Summit County
C. Alvin Orme.....	Tooele, Tooele County
Don B. Colton.....	Vernal, Uintah County
E. W. Southwick.....	Lehi, Utah County
E. H. Snow.....	St. George, Washington County
John Halls.....	Huntsville, Weber County
Joseph Eckersley.....	Loa, Wayne County
J. R. Murdock.....	Heber, Wasatch County
R. S. Collett.....	Roosevelt, Duchesne County

Branch Agricultural College of Utah at Cedar City

OFFICERS OF ADMINISTRATION AND INSTRUCTION

ELMER GEORGE PETERSON, A. M., Ph. D.
President

ROY FISHER HOMER, B. S.
Principal

PARLEY DALLEY, B. S.
Instructor in Chemistry and Physics

ROBERT S. GARDNER, B. S.
Instructor in Ironwork and Mathematics

DAVID SHARP, JR., B. S.
Instructor in Animal Husbandry

H. J. FREDERICK, D. V. M.
Director of Veterinary Clinics

JOHN L. COBURN, B. S.
Financial Secretary

JOHN S. CHRISTENSEN, B. S.
Director of Physical Education and Athletics

GEORGE H. LUNT, A. B.
Instructor in History and Economics

ROZINA SKIDMORE, B. S.
Instructor in Domestic Art

GILBERT L. JANSON, B. S.*
Instructor in Commercial Subjects

JOHN H. MOSER
Instructor in Art

WILLIAM G. WOOLLEY, B. S.
Instructor in Agronomy and Horticulture, Superintendent of Farms

JOHN H. PENDLETON, B. S.
Instructor in Woodwork, Mechanical Drawing and Mathematics

*On leave.

AGRICULTURAL COLLEGE OF UTAH

ALMA ESPLIN, B. S.

Instructor in Agronomy, County Agent for Iron County

LOTTIE H. KUNZ, B. S.

Instructor in English

Instructor in Domestic Science

KENNETH ROYLANCE

Instructor in Violin, Director of Band and Orchestra

H. LE ROY FRISBY

Instructor in Piano, Vocal, Director of Chorus

C. W. NISSON, B. S.

Instructor in Commercial Subjects

H. CLAUD LEWIS, A. B.

Instructor in Normal Training Department

AMY BOWMAN

Director of Normal Training

EDGAR H. WHITE, B. S.

Principal Normal Training School

E. B. DALLEY

Critic Teacher

HAZEL GRANGER

Critic Teacher

LOIS GOWANS

Critic Teacher

EVA BUYS

Critic Teacher

MATTIE H. BOOTH

Critic Teacher

Secretary and Registrar

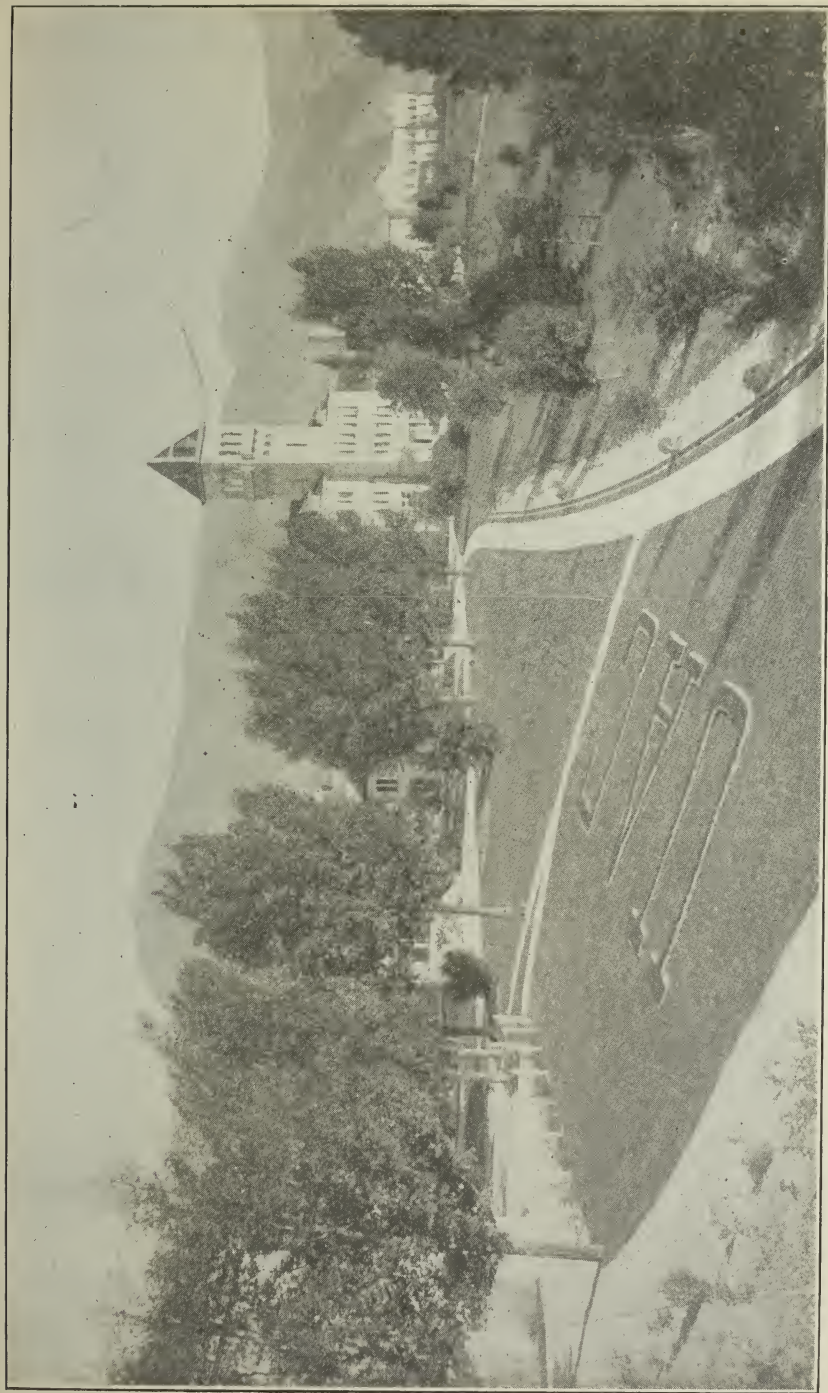
Librarian

GEORGE M. HUNTER

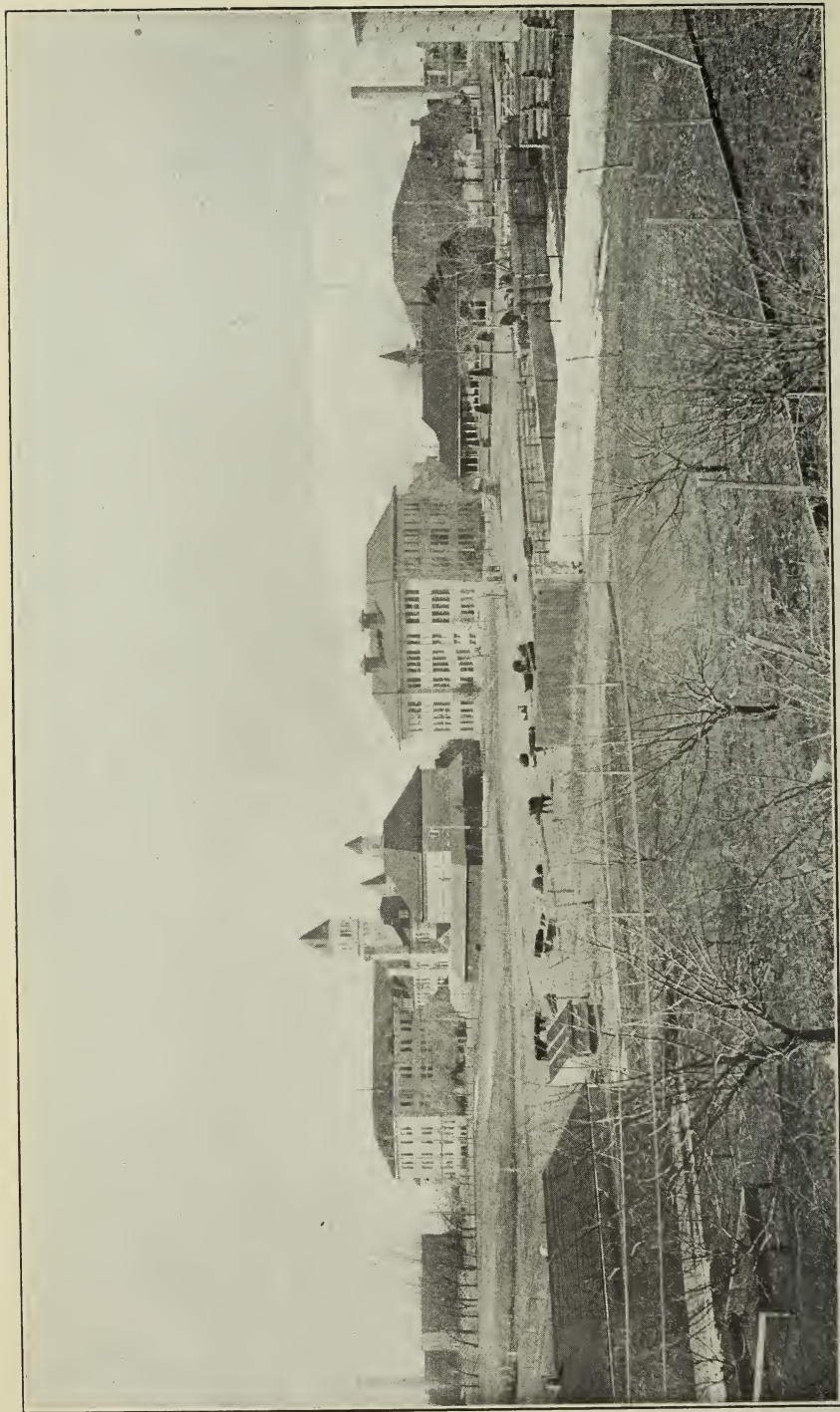
Superintendent of Buildings and Grounds

WILLIAM FLANIGAN

Engineer



VIEW OF MAIN BUILDING FROM THOMAS SMART GYMNASIUM



REAR VIEW OF COLLEGE BUILDINGS



EXPERIMENT STATION



WOMEN'S BUILDING



THOMAS SMART GYMNASIUM



MECHANIC ARTS BUILDING

AGRICULTURAL COLLEGE OF UTAH

LOCATION

The Agricultural College of Utah is in Logan, the county seat of Cache county, one of the most prosperous agricultural counties in the State. The city has a population, thrifty and progressive, of about 10,700; it is comparatively free from vice, quiet, orderly, clean, and generally attractive, with neat homes, substantial public-buildings, electric lights, a sewer, and a water system. The main streets are paved and cement walks ramify the city; an excellent street-car line extends from the station to the College, and the inter-urban connects Logan with other towns of the valley as well as with Salt Lake City.

The College, uniquely situated on a broad hill overlooking the city, one mile east of Main street, commands a view of the entire valley and surrounding mountain ranges. The site of the College was formed by the receding waters of prehistoric Lake Bonneville which built an enormous delta at the mouth of Logan canyon upon which the College buildings and farm are located. The beauty and geological significance of the location are perhaps unsurpassed. A few hundred yards to the south is the Logan river. A mile to the east is a magnificent mountain range with a picturesque canyon. In other directions are the towns and farms of Cache county distinctly visible thru the clear atmosphere. The valley is a fertile, slightly uneven plain, 4,600 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and completely surrounded by the Wasatch mountains. It is one of the most attractive and healthful valleys in the West.

POLICY

The Agricultural College of Utah provides, in accordance with the spirit of the law under which it was organized, a liberal, thoro, and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided; for the practical is based upon, and united with, the thoroly scientific. In addition to the practical work of the different courses, students are given thoro training in the sciences, mathematics, history, English, art, modern languages, and other related subjects. The object is to foster all that makes for right living, good citizenship, and high efficiency.

Under this general policy, the special purpose of the Agricultural College of Utah is to be of service in the up-building of the State and the great West to which it belongs. The instruction in agriculture and agricultural engineering, therefore, deals with the special problems relating to the conquest of the great areas of unoccupied lands, the proper use of the water supply, and the kinds of crop or live stock which in Utah may be made most profitable; instruction in mechanic arts, points out the most promising trades and teaches them so as to meet the needs of the State; instruction in commerce relates to the undeveloped resources and the present commercial conditions of the State, and investigates the principles and methods to be applied in the commercial growth of Utah; instruction in home economics teaches the women right living and economic independence from the point of view of prevailing Utah conditions.

The dominating spirit of the policy of the Agricultural College of Utah is to make the common work of the world—the work that most men and women must do—both profitable and pleasant. The motto of the College is, Labor is Life.

HISTORY

The Agricultural College of Utah was founded March 8th, 1888, when the Legislative Assembly accepted the terms

of the national law passed by Congress on July 2nd, 1862. Under this Act of Congress, and the Enabling Act providing for the admission of Utah to the Union, 200,000 acres of land were granted to the State from the sale of which there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives \$15,000 annually for the Experiment Station. Under the Adams Act of 1906, the State receives an additional \$15,000 annually for research work by the Experiment Station. Under the Morrill Act of 1890, amended by the Nelson Act of 1907, the State receives \$50,000 annually for instruction at the Agricultural College. Under the Lever Act, the State receives, in 1917-18, about \$15,000 which will increase for four years, for agricultural extension work to be done by the Agricultural College.

These federal appropriations, together with the annual income from the land-grant fund, represent the income received from the general government. Since most of these funds must be used in accordance with the law for specific purposes, the institution is dependent on State appropriations for funds with which to provide additional instruction and for general maintenance. These needs have been generously met in the past by the Legislative Assemblies of the State. In 1888 the sum of \$25,000 was appropriated for buildings, and the county of Cache and the city of Logan gave one hundred acres of land on which to build the College. Since that time the State has, from time to time, appropriated sufficient funds to erect and maintain all the buildings described in a later section, besides providing largely for instruction, experimentation, and extension work.

By a recent legislative action, the College receives annually 28.34 *per cent.* of 28 *per cent.* of the total tax revenue of the State, after deducting the revenue from 2.4 mills on the total State valuation, (which is not to be exceeded) set aside for the support of the elementary and the high schools. In the same ratio the College will participate in the revenue from the recent occupational tax. The State, moreover,

provides \$10,000 annually for extension purposes, \$15,000 for experimental work, and an increasing fund for farm and home demonstrations.

In September, 1890, the institution was first opened for the admission of students. Degree courses were offered in agriculture, domestic arts, civil engineering, mechanic arts, and commerce; a preparatory course and short courses in agriculture and engineering were also given. Since that time many improvements have been made in the courses; some have been abandoned; various special, practical, year and winter courses in commerce, mechanic arts, and home economics have been added; the standard of the college work has been raised. In 1903, the Board of Trustees established the School of Agriculture, the School of Home Economics, the School of Mechanic Arts, the School of Commerce, and the School of General Science, and in 1911 the School of Agricultural Engineering.

In 1913, the Branch Normal School at Cedar City was made a branch of the Agricultural College and is so maintained.

GOVERNMENT

The government of the College is vested primarily in the Board of Trustees and, under their control, in the four other administrative bodies,—the Directors' Council, the College Council, the College Faculty, and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of thirteen members. Twelve are appointed by the Governor with the approval of the State Senate; the thirteenth is the Secretary of State who is *ex officio* a member. This Board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships, to employ the instructing force and

other officers of the College, and to formulate the general policy of the institution.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for approval. In addition, there are committees, largely advisory, that deal with the general interests of the College.

THE DIRECTORS' COUNCIL consists of the President, the Directors of the various schools,—Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, General Science, and Summer School—the Director of the Experiment Station, and the Director of the Extension Division. This body has immediate supervision of the instruction and discipline in all the various schools. It constitutes a permanent executive and administrative committee of the College Council and Faculty.

THE COLLEGE COUNCIL consists of the President of the College and all members of the faculty holding the rank of professor, associate professor or assistant professor. All important questions of discipline and policy are decided by this body.

THE COLLEGE FACULTY includes the President, the professors, the associate professors, the assistant professors, ranking professors, the instructors, and the assistants. As an administrative body it is concerned with the ordinary questions of methods and discipline and with various other matters pertaining to the general welfare of the College. Thru its standing committees it is in intimate contact with the student body and with the life and interests of the college community.

THE STANDING COMMITTEES have delegated to them the immediate direction of all the phases of college life. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and of the students; the interests of the students on the athletic field, in the amusement halls, and in their various organizations,—all are within the province of appropriate committees.

THE EXPERIMENT STATION STAFF consists of the Presi-

dent of the College, the Director of the Station, and the heads, with their assistants, of the departments of the Station. This body is employed in the investigation of problems peculiar to agriculture in this part of the country. It is further responsible for the circulation, thru private correspondence and regular bulletins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for the public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the institution, and the community. Most important of these is an active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies, and exemplary personal conduct are insisted upon at all times, by the administrative bodies of the College.

ADMISSION AND GRADUATION

Admission.—Entrance to the freshman class is based upon a certificate of graduation from an accredited high school; or upon the presenting of 16 approved high school units of work, one of which may be for vocational experience acceptable to the institution; or, in case of students of special training not obtained in high school, upon examination.

A unit is equivalent to five hours' work a week for one year.

Credits should be mailed to the registrar by September 1.

Candidates for admission to advanced standing are required to pass satisfactory examinations in all of the work of the preceding years, or to present satisfactory evidence that the work offered is equivalent to the work for which they wish to substitute it.

Twenty-four hours of approved college work, in addition to the prescribed entrance requirements, are required for sophomore rank; 54 hours, for junior rank; and 84 hours, for senior rank.

Admission to the Practical Courses.—Persons 18 years or over, and those under eighteen who have had two years of high school, are admitted without examination to the practical courses.

Special Students.—Persons of mature years who desire special study are admitted as special students. To graduate from any of the schools, or to obtain class standing, special students not having the prescribed entrance requirements, must satisfy a committee by special examination, of their ability to pass the entrance requirements. This committee shall consist of the committee on entrance, the professor of English, and two members of the faculty from the school in which the student wants to do his major work. Application for the examination, which must be taken not later than the beginning of the junior year, may be made to the registrar the first or the last week of any term.

Registration.—The fall term opens Monday, September 10; the winter term, Monday, December 3; and the spring term, Monday, March 10. It is of decided advantage to register upon the opening date.

All students must report for registration for the fall term not later than Monday, September 17; for the winter term, not later than Monday, December 10; and for the spring term, not later than Monday, March 17, or pay an extra fee of \$2.50.

Graduation.—The degree of Bachelor of Science, in Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, or General Science, is conferred upon those who present 16 units of high school work, and 132 semester hours of college work, distributed as indicated in the "Summary of Requirements for graduation."

A semester hour is the credit allowed for one recitation or for three hours of laboratory work a week, for eighteen weeks.

The student must, moreover, have been in attendance at least one school year preceding the conferring of the

degree. He must have no grade lower than D in any subject used for graduation. Four fifths of his term grades must be C or better. He must have discharged all college fees. He must be recommended for graduation by his school faculty and receive the favorable vote of two thirds of the members of the College Council.

ORGANIZATION

The work of the College falls into three distinct divisions: first, the Experimental Division, having for its object the discovery of new truth or the new application of established truth, for the advancement of life; second, the College Proper, giving instruction, especially to young people, on the home campus of the College; third, the Extension Division, which carries instruction to the people who can not come to the College campus.

To accomplish this work the following administrative divisions exist, each of which draws upon the departments for its instructional or experimental force:

I. Experimentation

1. The Agricultural Experiment Station

II. Instruction on the College campus,—the College Proper

2. The School of Agriculture
3. The School of Home Economics
4. The School of Agricultural Engineering and Mechanic Arts
5. The School of Commerce
6. The School of General Science
7. The Summer School

III. Instruction beyond the College campus

8. The Extension Division

The instructional and investigational force and equipment necessary to carry out the work of the above divisions, are organized into departments, of co-ordinate authority, each of which represents a somewhat definite field of knowledge. All officers of instruction or experimentation belong

to one or another of these departments. One professor, designated head, carries the administrative responsibility of the department. At present the College maintains thirty-four departments.

THE STUDENT BODY ORGANIZATION AND STUDENT CLUBS

The Student Body Organization embraces all the students of the institution. Its prime object is to foster a proper spirit of college loyalty and to give the students practice in managing public affairs. It also secures dispatch and efficiency, as well as uniformity, in the administration of all matters pertaining to the entire student body and induces all students to participate in college activities. The organization provides each member with a maximum of proper athletic, theatrical, and social recreation at a minimum expense; viz., \$5 annually. This society has control, under faculty direction, of the following student activities:

1. *Athletics*, including all inter-class and intercollegiate contests in football, baseball, basketball, and track events. The Agricultural College is a member of the Colorado Conference, a fact which insures an interesting athletic program.

2. *Musicals*, including all public performances of the Band, the Orchestra, and musical clubs.

3. *Theatricals*. In the past, *A Midsummer Night's Dream*, *She Stoops to Conquer*, *Pygmalion*, *Milestones*, *The Admirable Crichton*, and various other productions, have been presented.

4. *Debating and Public Speaking*. Triangular debating arrangements have been made whereby the Agricultural College debates the University of Utah and the Brigham Young University every year on the same question. Inter-state debates are also held. Those who make places on the teams not only win awards but are admitted to membership in the Agora, an honorary debating fraternity. Interest in inter-class debating, for which the Thomas medals are given, is keen.

The annual oratorical contests for the Hendricks medal, for that given by The Sons of the American Revolution, and for the chance to represent the College in the Inter-collegiate Peace contests, maintain among the students an active interest in extemporaneous public speaking. For dates of these contests, see college calendar, page 5.

5. *Student Publications.* The students of the College, under the direction of the faculty of English, publish a weekly school paper, *Student Life*. The junior class publishes the College year book, named *The Buzzer*; the Quill Club, the *Agri-Literose*; the Ag. Club, *The Link*.

6. *Lyceum Course.* Each year the Student Body presents, in connection with the B. Y. College, from four to six lecturers, readers, or musical attractions, of national or local repute. These entertainments are free to members of the Student Body.

CLUBS

Not affiliated with the Student Body organization, but standing largely for the interests of the various schools, are the following clubs:

The Agricultural Club, which aims to promote interest in scientific agriculture. The club has effected similar organizations in the high schools of the State. Special lectures, often illustrated, are given at intervals thruout the season.

The Agricultural Engineering Society which aims to stimulate the interest of students in the more practical side of the work embraced by the engineering courses. Men of repute are invited to discuss questions before the society. It also aims to promote the interest of the students socially.

The Home Economics Club, which is composed of the students in domestic science and arts. The object of the club is to keep students in touch with movements in their field and to promote interest in home economics. Many home economic societies in the high schools of the State are affiliated with this organization.

The Commercial Club, working to promote the interests

of the Commercial School, to popularize the commercial courses, and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men of the State, on topics of special interest to the business man. All commercial students are eligible to membership.

The Mechanic Arts Association, designed to promote the social and intellectual interests of its members. All the teachers and all the regularly enrolled students of mechanic arts are eligible to membership. Monthly meetings are held thruout the year, at some of which lectures are given by specialists.

Gamma Sigma Delta, a chapter of the national honorary fraternity for students in agriculture. Members are chosen for scholarship from the upper two-fifths of the junior and senior classes in agriculture.

The Agora, a fraternal organization open to men from the intercollegiate debating teams. Its purpose is to foster debating in the College and to keep alive among the old debaters an interest in such contests.

The Chemistry Club, organized to promote interest in chemistry.

The Be-No Club, organized to promote scholarship, fellowship, and loyalty.

The Benedicts' Club, designed to promote the social welfare of married students and to lower their expenses by co-operative buying.

The Periwig Club, composed of students prominent in dramatics, produces annually several plays.

The Booklovers' Club, organized for the study of subjects related to English literature but not usually treated in the classroom.

The Quill Club, an organization of writers.

The Camera Club, a group of students interested in artistic photography.

The Cosmos Club, organized for the study of world politics.

Various other clubs, as well as a number of fraternities and sororities, are also in successful operation.

STUDENT EXPENSES

Tuition is free. Utah students pay an annual entrance fee of \$5; students registering from other states pay \$25. The privileges of the library and museums are free. In most of the laboratory and shop courses students are charged an incidental fee of \$1 a laboratory credit hour. The total amount varies in each case in accordance with the courses taken, ranging from \$2 to \$15 a year.

Every regular student must pay a Student Body fee of \$5, for which a ticket is issued admitting him to all the activities controlled by the Student Body Organization: athletic events—football, basketball, baseball, and track—dramatic and musical entertainments, socials, lectures, etc. This system has been found to be a great saving to the students and a most excellent means of fostering proper interest in student activities.

All male students, who are citizens of the United States, during the first two years of their course, must take military drill. A uniform is furnished free by the Government. To this rule there is no exception, unless physical disability or some other very unusual reason exists.

All students in domestic science must provide themselves with two white aprons, two pairs of white half-sleeves, and two holders, six inches square.

All students taking physical culture must provide themselves with a gymnasium suit and gymnasium shoes. Cost, about \$6.

The fee charged for a diploma of graduation is \$5.

Good board and room in a private home costs from \$5 to \$6 a week. By renting rooms and boarding themselves, students are able to reduce considerably the cost of room and board.

The College maintains a modern, well equipped cafe-

teria where, at cost, students may get a well cooked meal daily.

The cost of necessary books and stationery ranges from \$15 to \$30 a year.

Students are held responsible for any injury done by them to the College property.

The following table furnishes an estimate of the actual yearly expenses of students attending the Utah Agricultural College:

	Lowest	Average	Liberal
Tuition, books, fees, etc.....	\$ 40	\$ 40	\$ 40
Room and board.....	160	180	200
Incidentals or miscellaneous.....	25	70	135
Total.....	\$225	\$290	\$375

By rigid economy, students have reduced their expenses below the lowest of these estimates.

BUILDINGS AND EQUIPMENT

The College now has nearly thirty buildings, all modern, well lighted and heated, and all carefully planned.

THE MAIN BUILDING is 360 feet long, 200 feet deep in the central part, and four stories high. It contains the large auditorium, seating about 1,500; the administrative offices; the library; and many class rooms and laboratories.

THE WOMEN'S BUILDING is one of the largest and best equipped structures devoted entirely to domestic science and arts in the inter-mountain region.

THE THOMAS SMART GYMNASIUM is one of the finest and most complete college gymnasiums in the Rocky mountain region. It contains a main exercise hall, 114 by 70 feet, the equipment of which can be quickly put in place or hoisted out of the way, to suit any need. Ten feet above the main floor is a running-track, a hand-ball court, and a wrestling and boxing room. The large pool, shower and steam baths, and dressing rooms with steel lockers, are ideal.

THE EXPERIMENT STATION is a two-story brick structure 45 feet long and 35 feet wide, containing the offices of the station staff, a reading room, and a dark room for photography.

THE MECHANIC ARTS BUILDING, a two-story brick structure, has a floor area of 40,000 square feet, and contains the woodworking department, machine shop, forging rooms, foundry, carriage building rooms, mechanic arts museum, drafting rooms, blue-printing room, room for painting and staining, and class rooms,—all well equipped.

Since this building is also the home of the Departments of Agricultural Engineering and Farm Machinery, it contains laboratories specially equipped for such work. The drawing rooms and shops of the Mechanic Arts department are accessible to students in agricultural engineering.

THE THREE STORY CHEMISTRY BUILDING, thoroly modern in plan and equipment, is occupied by the Departments of Chemistry, Physics, and Bacteriology.

THE BARNS contain the various breeds of cattle, horses, sheep, and hogs, most common in the western section.

THE STOCK JUDGING PAVILION makes it possible to do judging in all kinds of weather.

In addition to these, a college creamery is maintained, where butter and cheese of the best quality are made, and where students are taught scientific methods.

THE POULTRY BUILDING, 230 feet by 25 feet, is divided into two parts: first, the brooder section, with a capacity for about one thousand chicks; second, the experimental section, with a capacity for over five hundred hens, divided into thirty-two pens used for conducting experiments in poultry culture. The incubator cellar is well supplied and modern.

THE GREENHOUSES are prepared for laboratory instruction in the propagation of horticultural plants, and in the practice of floriculture and vegetable gardening.

THE VETERINARY HOSPITAL contains a well-equipped dispensary, operating room, and stalls for patients.

EQUIPMENT

The Bacteriological Laboratory is well equipped with modern apparatus. To encourage careful work, the students are provided with individual lockers.

The Chemical Laboratories are modern and thoroly equipped.

The Physical Laboratory Equipment is complete, consisting of all the necessary apparatus for class demonstration. Gas, compressed air, continuous and alternating current electrical power, etc, are available.

The Physiological Laboratory is supplied with an excellent collection of native animals, skeletons both articulated and disarticulated, many enlarged models of organs, a *papier mache* manikin, and complete slides of all the tissues.

The Zoological and Entomological Laboratory is equipped with water and gas, improved instruments, embryological models, skeletons from the vertebrate groups, collections of mounted birds, mammals, reptiles, fishes, and insects.

The Botanical and Plant Pathological Laboratory is well equipped for general work as well as for research. The department maintains a good working library in connection with the laboratory.

The Department of Agronomy is provided with a large collection of agricultural plants, seeds, and soils, representing the main crops and types of soil of the inter-mountain region.

The College farms are equipped with the best and latest implements and machinery for carrying on work scientifically. They are divided, for illustrative and experimental purposes, into numerous plats on which many varieties of farm crops are grown, and upon which important experiments are carried on.

The soil physics laboratory has a good supply of apparatus for accurate and up to-date work.

The farm crops laboratory, equipped with gas, has a large supply of farm crops on hand and is well supplied with apparatus.

The Commercial Rooms occupying the entire third floor of the front of the Main building, are specially designed and furnished for business. The room for typewriting contains a full complement of standard machines.

The College Museum contains many specimens illustrative of geology, mineralogy, paleontology, and vertebrate and invertebrate zoology, including a large series of the insects of the inter-mountain region; also an extensive series of plants of the western highlands. An extensive collection of grains represents the produce of Utah and other states. Contributions of fossils, ores, animals, plants, relics, or other material of value to the museum, are appreciated. All gifts are labeled and preserved, and the name of the donor is recorded.

The Art Rooms, composed of six studios, are supplied with plain and adjustable tables, easels and model stands, individual lockers, cases for materials, casts from the old masters in sculpture, reproductions of great paintings, still-life models and draperies, as well as with a valuable collection of ceramics, textiles, and books on art.

The rooms are further supplied with a kiln for china firing, and equipment for work in ceramics, pottery, art leather, art metal, and jewelry.

The Library occupies the entire front of the second floor of the Main building, and contains about 30,700 bound volumes and a large number of pamphlets. The books are classified by the Dewey decimal system, and there is a complete dictionary card catalog. The shelf list, also on cards, forms a classed catalog for official use.

The library, a depository for United States public documents, receives practically all material printed by the government. The files of the U. S. Agricultural Department and the publications of the State Experiment Stations are nearly complete; the bulletins are bound, and made easy of access by the printed card catalogs. There are one hundred and twenty-five periodicals on the subscription list, besides about eighty which are received as exchanges for the publi-

cations of the College and of the Experiment Station. Thirty-five newspapers of the State are regularly received and placed on file in the reading room.

The land occupied by the College embraces about 116 acres. Of this, thirty-five acres constitute the campus, laid out with flower-beds, broad stretches of lawn, tennis courts, wide drives and walks.

Immediately east of the Main building are the parade grounds and old athletic field, of about ten acres. The Adams athletic field is one-fourth mile west of the campus. The farms comprise 71 acres; the orchards and the small fruit and vegetable gardens, 10 acres.

Other farms are maintained, under the direction of the Experiment Station, in various parts of the State.

The equipment of the Branch Agricultural College is described in the circular of that institution.

THE EXPERIMENT STATION

THE AGRICULTURAL EXPERIMENT STATION is a department of the College, supported by Federal and State appropriations, supplemented by the receipts from the sales of farm products. The Station was created for the purpose of discovering new truths that may be applied in agriculture, and for making new applications of well-established laws. Essentially devoted to research, it does the most advanced work of the College.

The Station is not, in the ordinary sense, an institution where model farming is carried on. It has a much higher purpose. The practices of the farmer are subjected to scientific tests, in order to determine why one is bad and another good. Acting on the suggestions thus obtained, the scientists begin new investigations, in the hope that truths of great value to the farmer may be discovered.

The Station confines its efforts as far as possible to the particular problems of the inter-mountain region. Irrigation, the foundation of western agriculture, has received greatest attention. Elaborate experimental plats have been equipped, where the value of different quantities and meth-

ods of application of water have been studied and the underlying principles brought out.

Dry-farming problems are only second in importance to those of irrigation in the development of the West. A number of experimental dry-farms are maintained on which every effort is made to increase production. Many of the present investigations involve the water-holding capacity of soils, the water requirements of crops, the movement of plant foods, and other questions fundamental to all systems of agriculture.

Other problems vitally affecting the agricultural West are under investigation. Breeding experiments for the improvement of sugar beets, dry land grains, alfalfa, and poultry are in progress. Studies of insect pests and plant diseases affecting western crops and orchards have received consideration. The problem of producing fruit free from worms has been practically solved. The control of the alfalfa weevil is one of the present problems. The development of better cropping methods, care and feeding of livestock, the development of the dairy industry, and the general betterment of western agricultural conditions are among the problems the Station is attempting to solve.

State appropriations are granted under provision that the arid experiment farms be maintained, and that work in irrigation and drainage, and the study of the alfalfa weevil, be continued. Publications of the Station are also provided for. Bulletins containing the results of experimental work, circulars containing timely and practical information on various subjects, an annual report,—these constitute the publications of the Station. The bulletins and circulars are published at irregular intervals.

The Experiment Station has a high educational value. Nearly all the staff are also members of the College faculty; the students, therefore, receive at first hand an account of the methods and results of the work of the Station, as well as training in their application. The opportunities that the Station offers for advanced work in several branches of science are of great importance. The scientific method and

spirit characterize all its operations, and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station is always glad to assist the advanced students in any investigation they wish to undertake.

THE EXTENSION DIVISION

Organized for the purpose of disseminating all the work of the College among the people of the State, as far as practicable, and for the further purpose of beginning new work outside the College, which may be of service to the people of the State, the Division serves two purposes: it carries on organized instruction in the various subjects included in the College curriculum; and it performs personal and community service of a more directly practical nature. The Extension Division is the joint representative in Utah of the United States Department of Agriculture and the Utah Agricultural College.

ADMINISTRATIVE DEPARTMENTS

The Extension Division, in its administration, is divided into departments, as follows:

- I. Farm Management Extension
 1. Farmers' Institutes and Schools
 2. Farm Demonstrations (County Agent work)
 3. Farm Management Demonstrations
 4. Specialists
- II. Home Management Extension
 5. Housekeepers' Institutes and Schools
 6. Home Demonstrations
- III. Junior Vocational Extension
 7. Boys' and Girls' Clubs
 8. High School Clubs
- IV. Correspondence Studies
- V. Miscellaneous
 9. Trains, Fairs and Exhibits
 10. Community Service Bureau
 11. Publications

The departments of Farmers' and Housekeepers' Institutes and Schools conduct meetings among the farmers and housewives of the State. These meetings may be single, called institutes; or they may be organized courses of study in one or many subjects, called schools. In the schools, the field of instruction is broad, based largely upon existing courses of instruction in the College. At present the following courses of instruction are emphasized because of their immediate relation to the needs of the State: agronomy, agricultural economics, agricultural engineering, animal husbandry and dairying, entomology, home economics, horticulture, irrigation, poultry husbandry, and veterinary science. As the work develops, the field of instruction may be enlarged to include all the courses given in the institution which are adaptable to extension instruction.

Farm and Home Demonstration includes the work of the county demonstrators, also called agents, and that of the extension specialists. These travel from farm to farm and from home to home teaching such facts, principles, and practices of modern agriculture and home science as seem needed in the development of the districts assigned. The demonstrator cooperating with the experts at the College and those of the United States Department of Agriculture, is a member of the extension faculty in agriculture and home economics.

The work in Farm Management Demonstrations emphasizes the business side of farming. Farmers are taught how to analyze their business, how to keep proper accounts, and how to summarize their work at the end of the year to determine profit or loss.

Boys' and Girls' Clubs and High School Clubs, conducted cooperatively with the United States Department of Agriculture, interest boys and girls in agriculture, home economics, and other industrial subjects, and serve the parents of the State in supplying work of great intellectual and practical value for their sons and daughters. This

department is affiliated with public schools, church organizations, and existing organizations of boys and girls. Contests are conducted in the growing of potatoes, sugar beets, mangel wurzels, cabbages, onions, peas, tomatoes, cucumbers, celery, poultry, corn and pigs, and in the making of bread, in canning, sewing, in the arts and crafts, etc. The competition is arranged first among members of the same club; then among the champions of the clubs in the county; and finally, among the champions of all the counties. A State champion boy and a girl are thus selected each year. To promote the work, various prizes are offered.

Associations for women, work thru the women's organizations of the State—civic, religious, or literary—and organize groups of girls and women for study of home economics. Monthly study outlines, or home economic leaflets, are issued by the Extension Division for the use of the home economics associations. Other women's organizations in the State are helped in their educational and home work, by special lectures, supplying reading matter, suggestions for organization, and study outlines.

THE CORRESPONDENCE-STUDY DEPARTMENT. One of the recent developments of college organization is the establishing of correspondence-study departments, in order to extend its activities to the fireside.

Correspondence-study furnishes an excellent opportunity for systematic instruction to the student preparing for high school or college, the teacher, the professional or business man, club women,—to all who cannot leave home.

Admission to Correspondence Work. Students must be eighteen years of age or graduates of the public school.

Scope. Courses offered:

1. Academic studies which, under certain restrictions, count towards a degree.
2. Practical studies designed to advance men and women in a given occupation.
3. Reading Courses for the farmer: short, practical, non-credit courses in agronomy, animal husbandry, horticulture, farm machinery, bee-keeping, etc.

4. Reading Courses for the housewife: short, practical, non-credit courses in sanitation, home management, cooking service, sewing, home decoration, home care of the sick, etc.

3. A preparatory or high school course.

6. Preparatory or grade studies.

Special bulletins of the correspondence-study department will be mailed to any one interested.

The purpose of the Department of Trains, Fairs and Exhibits is to conduct trains in co-operation with the railroads; to encourage county and other fairs by supplying organization and exhibition outlines, lectures, premium lists, and judges of exhibits. On various other occasions the Extension Division supplies material for exhibition.

The work of the Community Service Bureau, designed to help Utah towns and villages in community celebrations, club work, and school life, includes (a) play service, (b) club service, (c) community service, (d) debate service, and (e) library service.

Publications of real value to the rural communities are issued in the form of circulars, as occasions demand.

COLLEGE PROPER

ORGANIZATION

For the purpose of efficient administration, the instruction on the campus or in the College proper is divided into seven schools: (1) The School of Agriculture; (2) The School of Home Economics; (3) The School of Agricultural Engineering; (4) The School of Commerce; (5) The School of Mechanic Arts; (6) The School of General Science; (7) The Summer School.

The School of Agriculture offers a four-year college course with opportunity to major in agronomy, horticulture, animal husbandry and dairying, agricultural chemistry, bacteriology, plant pathology, veterinary science, or economic entomology.

The School of Home Economics offers a four-year col-

lege course with opportunity to major in foods and dietetics, domestic art, home sanitation and construction, art, and music.

The School of Agricultural Engineering offers a four-year college course with the opportunity to major in irrigation and drainage, farm mechanics, agricultural surveying, roads, rural architecture, rural sanitation, and agricultural technology.

The School of Commerce offers a four-year college course with the opportunity to major in accounting, economics, political science, sociology, finance and banking, and history.

The School of Mechanic Arts offers, in addition to shorter trade courses, a four-year college course in mechanic arts, with the opportunity to major in woodwork, iron work, and machine work.

The School of General Science offers a four-year college course in general science.

The Summer School offers instruction during six weeks of the summer, after the regular term has closed, in most of the subjects taught during the winter.

Each school also offers *Practical Year and Winter Courses* which may be taken by mature students fitted to follow them.

For *Normal Training*, see *index*.

THE SCHOOL OF AGRICULTURE

Agriculture is one of the most promising of modern professions. It is growing very rapidly, and owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. On the contrary, the freedom, health, intellectual activity, and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and other western states are offering excellent opportunities to those who prepare themselves for scientific

farming. There is a great demand for men who can supervise large farm enterprises; there is a greater demand for men who can act as experts, experimenters or teachers in the schools and other institutions in the State and National Government. The supply of such men does not equal the demand.

Experience having shown that practically all of the students who take agriculture come from the farms, it is assumed that they are acquainted with the various manual operations of farm work. The design of the school is, therefore, to teach the sciences that underlie practical agriculture, and to offer sufficient supplementary studies to develop the agricultural student to the intellectual level of the educated in the other professions. The agricultural courses are planned to lay a foundation upon which the student can build a successful career as a farmer or develop into a specialist in agriculture.

The general and departmental libraries enable the student to become acquainted with a wide range of agricultural and related literature; the laboratories of the College and the Experiment Station afford opportunity for training and experience not obtainable from books alone.

For subjects in which the student may major or minor see Required Work for Graduation.

THE SCHOOL OF HOME ECONOMICS

The courses in Home Economics train and broaden the minds of women, enabling them to meet more intelligently the home demands of modern life. When woman has learned to apply the principles of science, economics, and art to the problems of daily living she will realize that home making is an occupation which results in more efficient living. Formerly the higher education of women led her away from the practical interests of the home. The recent instituting of domestic science courses in many leading colleges and universities shows a public demand for education toward home life rather than away from it. The State of Utah wisely introduced such courses when the

College was first organized; and the favor with which the work has been received by the public shows the wisdom of the plan. The instruction has been strengthened each year, and better facilities provided. The School comprises five departments,—namely, Foods and Dietetics, Domestic Art, Home Construction and Sanitation, Art, and Music. The four-year courses give the same general training as do other baccalaureate courses, together with a broader culture in literature and other subjects of special interest to women than is offered in any other. Both in the preliminary work and in the advanced years, special studies in home science are prescribed in logical order as the distinctive feature of the course.

The vocational courses in home economics are offered for the benefit of young women who, not wishing to take the studies of the regular college years, desire to devote more time to the subjects of special interest to them.

For majors and minors, see Required Work for Graduation.

THE SCHOOL OF AGRICULTURAL ENGINEERING

The rural problem has many phases. An adequate and self-perpetuating country life cannot be made simply by teaching people how to raise grain and fruit, and how to manage and improve livestock. The country might be filled with farmers well trained in these branches and still lack many of the elements necessary for a well-balanced and efficient rural community. Many problems having to do with the entire community rather than with the individual farmer must be solved by men with training for that kind of work rather than by those trained to produce crops and livestock on a single farm. Again, many questions on the individual farm have to do with construction rather than with production from the soil. These questions can be properly answered only by men with special training.

In the past, agricultural colleges have given their attention to the direct questions of farming, but now the entire rural problem must be met. The farm must be a desirable and healthful place to live. The buildings must

be so arranged and constructed as to give the maximum of efficiency and comfort and at the same time have proper sanitary provision. The rural roads must be such that the farmer can move his crops with small expense, and go to town with comfort and speed. The machinery of the farm must be so constructed and cared for that it will be reliable and work economically. The limited supply of irrigation water must be so used as to produce maximum returns. There must be factories to change the raw materials of the farm into high-priced finished products. All these necessities demand men trained for them.

To meet the demand, the College has organized a School of Agricultural Engineering designed to enable men to solve all but the most technical engineering problems of an entire rural community. The courses are very helpful to the farmer who does not wish to do the work of a trained engineer.

Students may major in irrigation and drainage, farm mechanics, agricultural surveying, farm and public roads, rural architecture, rural sanitation and public health, agricultural technology, and art. These courses all lead to the degree of Bachelor of Science.

THE SCHOOL OF COMMERCE

The purpose of the School of Commerce is to give opportunity for a liberal education with special emphasis upon the commercial and industrial phases of life. Persons who complete the commercial courses are prepared to assume leadership and responsibility in business and in various industries and professions. In order to meet the growing demands and to keep pace with recent tendencies in business education, students may major in economics, political science, sociology, accounting, finance and banking, and history.

In addition to these college courses, vocational courses are offered.

For the professions of law and medicine, the commercial courses afford excellent preparation. Graduates are

prepared for positions as teachers in commercial schools. The demand for qualified teachers is greater than the supply, and many desirable positions as industrial managers are open to those who are qualified.

THE SCHOOL OF MECHANIC ARTS

This school offers three-year trade courses in contracting and building, forging and carriage work, and automobile repairing; a two-year trade course in painting and interior decoration; and a four-year college course leading to the degree of Bachelor of Science. These afford opportunity for persons endowed with mechanical ability, to develop their powers, and to enjoy working where nature intended. The life of the trained mechanic is as free as any, and his efforts bring good wages.

The information offered finds application in every industrial activity, and is much demanded by the rapid growth in the mechanical and industrial pursuits. As more and more of the work of man is done by machinery and labor-saving devices, it is desirable to obtain information that will enable him to meet the new conditions intelligently. The many applications of electricity and gas power in the factory, shop, home, and on the farm, and the advent of the automobile demand a knowledge of materials, tools, machines, and processes.

The agricultural student can obtain in the School of Mechanic Arts just the information he needs to enable him to do the constructive work in farm buildings, and the repair work necessary in operating machinery, thereby making farm life more profitable and desirable. Those who intend to enter engineering will find no better preparation than that offered in the mechanic arts courses. In the shops a knowledge of the nature of materials, methods of construction, and operation of machinery, can be had better than elsewhere. The demand for manual training teachers is far in advance of the supply.

The drafting rooms give thoro work in the methods of making mechanical drawings, and afford opportunity to specialize in the line of work the student is pursuing; such

as, architectural, carriage, machine, and agricultural drawing.

Students may major in wood work, iron work, machine work, and art. Vocational courses are also offered.

All products of the shop are the property of the school, students being allowed to take away specimens of their work only by permission.

THE SCHOOL OF GENERAL SCIENCE

To carry out the work of the several technical schools of the College, an efficient instructing force and a complete modern equipment have been provided in the natural and physical sciences, as well as in English, mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years, and admitting of specialization later. Such courses constitute the work of the School of General Science, and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science.

Upon completion of four years' work in general science, students receive the degree of Bachelor of Science in General Science.

For subjects in which students may major or minor, see Requirements for Graduation.

SUMMER SCHOOL

The College maintains, as an integral part of its work, a summer session, beginning early in June, and continuing for six weeks. Every department of the College is represented, the courses of instruction being arranged to meet the particular needs of summer students. For the benefit of teachers, special courses are provided in addition to the regular work of the College. Students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is avail-

able for the summer session, and every care is taken to preserve the standard and the spirit of the College. No admission requirements are prescribed, but students in all departments are directed by instructors to those courses in which they may pursue work to the best advantage. Arrangements have been made with the State Board of Education to accept summer school credits in individual subjects in lieu of examination. An entrance fee of \$5 is charged for each full course. Board and rooms can be secured thruout the city at the usual prices. The special summer school circular will be sent on request.

NORMAL TRAINING. For the purpose of providing specially trained teachers of domestic science and arts, agriculture, and mechanic arts, arrangements have been made whereby the graduates of the Normal School of the State University may enter the degree courses of the Agricultural College and there obtain technical work in home economics, agriculture, and mechanic arts. All the work done in the State Normal School is credited the candidates for the professional degree.

Graduates from the degree courses in home economics, agriculture, mechanic arts, commerce and general science, of the Agricultural College, are given the normal certificate upon the completion of one year of professional work at the State Normal School.

SCHEDULE OF WORK REQUIRED FOR GRADUATION

A student must present 16 units of high-school work for entrance, and complete 132 semester hours of college work before receiving his diploma. Of the required 132 hours, 16, forming the major, must be in one department. The minors of 12 hours, chosen from one or more departments, must be taken in the same school as the major. This is the so-called *technical* work. Besides this, 64 hours of *General work* must be chosen from different groups. Finally, 40 hours of elective work are required. This is shown in tabular form as follows:

SUMMARY OF REQUIREMENTS FOR GRADUATION

(In Semester Credit Hours)

Technical Division

Major Subject.....	16 hours
Minor Subjects (must be in same school as the major subject).....	12 "

General Division

Biological Science Group.....	12 "
Exact Science Group.....	24 "
Language Group.....	16 "
Social Science Group.....	12 "
Electives.....	40 "

Total.....132 hours

The departments from which major and minor subjects may be elected are grouped as follows:

REQUIRED WORK

Technical Division

Major, 16 hours in one department.

Minors, 12 hours in some other department or departments of the same school.

SCHOOL OF AGRICULTURE

Agronomy	Chemistry
Animal Husbandry	Dairying
Art (minor only)	Entomology
Bacteriology	Horticulture
Botany and Plant Pathology	Veterinary Science

SCHOOL OF AGRICULTURAL ENGINEERING

Art	Irrigation and Drainage
Agricultural Surveying	Roads
Agricultural Technology	Rural Architecture
Farm Mechanics	Rural Sanitation

SCHOOL OF COMMERCE

Accounting and Business Practice	Finance and Banking
Art (minor only)	Political Science
Economics	Sociology
History	Stenography (minor only)
	Typewriting (minor only)

SCHOOL OF HOME ECONOMICS

Art	Home Sanitation and Construction
Domestic Art	Music
Foods and Dietetics	

SCHOOL OF MECHANIC ARTS

Art	Machine and Automobile Work
Iron Work	Wood Work
Mechanical Drawing	Technology of Mechanic Arts

SCHOOL OF GENERAL SCIENCE

Art	History
Bacteriology	Library Work*
Botany	Mathematics
Chemistry	Music
Drill*	Physics
English	Physical Education*
Entomology	Physiology.
Foreign Languages	Zoology
Geology	

The departments from which the general subjects may be elected are grouped as follows:

REQUIRED WORK

General Division

BIOLOGICAL SCIENCE GROUP (12 hours)

Bacteriology	Physiology
Botany	Veterinary Science
Entomology	Zoology

*May count towards a minor.

EXACT SCIENCE GROUP (24 hours)

Accounting	Mathematics
Chemistry	Physics
Geology	Surveying

LANGUAGE GROUP (16 hours)

English	Latin
French	Spanish
German	

SOCIAL SCIENCE GROUP (12 hours)

Economics	Political Science
History	Sociology
Finance and Banking	

ELECTIVES (40 hours)

VOCATIONAL COURSES

Vocational courses in agriculture, home economics, mechanic arts, and commerce have been added to the regular work of the school. In these, emphasis is given subject matter which can be put to immediate and practical application on the farm, in the shop, in business, or in the home.

These added vocational courses are given in each term and are repeated to fit the needs of the students. But many of them are so arranged as to give students a full year's work as complete in one term. The widest range of work will be open to students during the winter term. Many of the courses given as a part of the regular college work are also vocational in their application. Vocational students may be admitted to college work if, after consultation with the head of the department, it is found that their training is sufficient to carry it.

No scholastic prerequisites are required for entering the vocational courses except that the student must have completed two years of high school work, or be over eighteen years of age.

Various vocational courses offered by the different schools of the College follow. For full description of them see departments concerned.

AGRICULTURE:

<i>Fall Term</i>	<i>Winter Term</i>	<i>Spring Term</i>
Agronomy	Agronomy	Agronomy
Animal Husbandry	Animal Husbandry	Animal Husbandry
Botany	Botany	Dairying
Dairying	Dairying	Farm Management
Farm Management	Entomology	Horticulture
Veterinary Science	Horticulture	Veterinary Science
	Poultry Husbandry	
	Veterinary Science	

COMMERCE:

<i>Fall Term</i>	<i>Winter Term</i>	<i>Spring Term</i>
Accounting	Accounting	Accounting
Economics	Economics	Economics
Sociology	Government	Marketing
Stenography	Marketing	Stenography
Typewriting	Sociology	Typewriting
	Stenography	
	Typewriting	

HOME ECONOMICS:

<i>Fall Term</i>	<i>Winter Term</i>	<i>Spring Term</i>
Art	Art	Art
Cooking	Cooking	Dressmaking
Foods	Dressmaking	Cooking
Home Construction	Foods	Foods
	Home Construction	Home Construction

MECHANIC ARTS AND AGRICULTURAL ENGINEERING:

<i>Fall Term</i>	<i>Winter Term</i>	<i>Spring Term</i>
Automobiles	Automobiles	Carpentry
Carpentry	Carpentry	Forging
Forging	Forging	Farm Motors
Farm Machinery	Farm Motors	Irrigation and
and Motors	Irrigation and	Drainage
Mechanical Drawing	Drainage	Surveying
	Mechanical Drawing	
	Rural Architecture	
	Roads	

GENERAL SCIENCE:

<i>Fall Term</i>	<i>Winter Term</i>	<i>Spring Term</i>
Bacteriology	Bacteriology	Bacteriology
Chemistry	Chemistry	Chemistry
Elocution	Elocution	Elocution
English	English	English
History	History	History
Mathematics	Mathematics	Mathematics
Music	Music	Music
Modern Languages	Modern Languages	Modern Languages
Physiology	Physiology	Physiology
Physics	Physics	Physics

TRADE COURSES

Three year courses, to prepare students for a trade, are given in the following lines of work: carpentry, forging, machine and automobile work, and in interior decoration. Two year courses are given in the following lines of work: show card and sign writing, art metalry, china painting, and fabric decoration.

Students wishing to prepare for a trade in any of the above lines should make arrangements with the heads of departments concerned, and on completion of the work outlined will receive a letter of recommendation, upon the approval of the College Council.

RELATION BETWEEN U. OF U. AND U. A. C.

The University of Utah and the Agricultural College of Utah are the two institutions maintained by the State for the higher education of its citizens. They have been assigned separate and sharply defined parts of the field of human knowledge. The laws defining these divisions are printed below.

In spite of the existing laws, much misunderstanding exists as to the work that may be done by either of these institutions. To set doubts at rest, the agreement printed below, which is merely an interpretation of the law, has been ratified by the Board of Regents of the University of Utah and by the Board of Trustees of the Utah Agricultural College.

To the Agricultural College, alone, has been assigned the collegiate work in all branches of agriculture, irrigation, agricultural engineering, home economics, including domestic science and art, commerce, and mechanic arts. To do properly the work thus assigned, first class departments must be maintained in practically all of the arts and sciences. All the work of the Agricultural College is, however, done with a view to its application in the fields belonging to the College. Moreover, the College is the conservator, as far as an educational institution may be such, of the industrial development of the State, excluding pure engineering and normal work, which are specifically assigned to the University of Utah.

STATE LAWS RELATING TO THE WORK OF THE TWO INSTITUTIONS

2292. Courses of Study in the University. The University, until otherwise provided for by law, shall be the highest branch of the system of public education. As far as practicable its courses and methods shall be arranged to supplement the instruction of the subordinate branches of such system, with a view to afford a thoro education to students of both sexes in the arts, the sciences, literature, and the civil professions, including engineering; but the University must not include in its courses, agriculture, except elementary agriculture as is or may be prescribed in the normal course, horticulture, animal industry, veterinary science, domestic science and art, except as is or may be prescribed in the normal course, and instruction in irrigation as applied to the measurement, distribution, and application of water for agricultural purposes. Approved March 9, 1911.

2087. Courses of Study in the Agricultural College. The courses of instruction in the Agricultural College, until otherwise provided by law, shall comprise agriculture, horticulture, forestry, animal industry, veterinary science, domestic science and art, elementary commerce, elementary surveying, instruction in irrigation as applied to the measurement, distribution, and application of water for

agricultural purposes, for which a degree in engineering in agriculture may be given, military science and tactics, history, language, and the various branches of mathematics, physical and natural science, and mechanic arts, with special reference to the liberal and practical education of the industrial classes. But the Agricultural College shall not give courses in liberal arts, pedagogy, the profession of law or medicine, or engineering, except agricultural engineering. Approved March 9, 1911.

UNIVERSITY OF UTAH-AGRICULTURAL COLLEGE
AGREEMENT

Proposition 1

The School of Education of the University of Utah shall give all the courses necessary to prepare teachers and supervisors in the elementary schools in all subjects taught in these schools; but the University shall not offer the technical work in agriculture and domestic science and domestic art, needed to prepare special teachers of these subjects in secondary schools. The University shall not offer advanced courses in agriculture, domestic science, and domestic arts; it may offer elementary courses in these subjects—high school courses—and educational courses, i. e., the methods of teaching these subjects.

It is understood that in these subjects courses suitable for third and fourth year high school students are also suitable for freshmen and sophomores in the college who have not had these courses. Such courses may be taught in the School of Education of the University, and students of college grade may receive college credit upon completion of these courses.

The Agricultural College shall not offer courses in education, but shall advise all students preparing to teach to come to the State School of Education to receive instruction and training in professional education subjects. The School of Education shall advise all students wishing to become special teachers of agriculture, domestic science, or domestic arts in high schools to go to the State Agricultural College for their technical work of college grade in these subjects.

Departments of Instruction

- | | |
|--------------------------------------|--|
| 1. Accounting and Business Practice | 21. Home Management Extension |
| 2. Agricultural Engineering | 22. Horticulture |
| 3. Agronomy | 23. Junior Vocational Extension |
| 4. Animal Husbandry | 24. Library Work |
| 5. Art | 25. Mathematics |
| 6. Bacteriology and Physiology | 26. Mechanic Arts |
| 7. Botany | a. Forging and Carriage Building |
| 8. Chemistry | b. Machine and Automobile Work |
| 9. Correspondence Studies | c. Woodwork and House-building |
| 10. Domestic Art | 27. Methods in Experimentation and Extension |
| 11. Economics and Sociology | 28. Modern Languages and Latin |
| 12. Elocution and Public Speaking | 29. Music |
| 13. English | 30. Physical Education |
| 14. Farm Management Extension | a. For Men |
| 15. Farm Mechanics | b. For Women |
| 16. Finance and Banking | 31. Physics |
| 17. Food and Dietetics | 32. Political Science |
| 18. Geology and Roads | 33. Veterinary Science |
| 19. History | 34. Zoology and Entomology |
| 20. Home Construction and Sanitation | |

RECITATION TABLE

The recitation periods, commonly known as hours, are fifty minutes in duration and begin at 8:00 a. m. The following shows the entire schedule:

1 hour,	8:00— 8:50
2 hour,	8:50— 9:40
3 hour,	9:40—10:30
4 hour,	10:30—11:20
5 hour,	11:20—12:10
6 hour,	12:10— 1:00
7 hour,	1:00— 2:00
8 hour,	2:00— 2:50
9 hour,	2:50— 3:40
10 hour,	3:40— 4:30

From 11:30 a. m. to 2 p. m. the cafeteria, or college restaurant, is open.

On Tuesdays, the sixth period (from 12:10 to 1:00) is devoted to chapel exercises; on Thursdays, to Student Body meetings. Military drill is held on Monday, Wednesday and Friday, 1:00 to 2:00. For class work in Military Science see the department.

Courses numbered a, b, c, constitute the work of the vocational courses and are of high school grade; courses numbered 1, 2, 3, are of college grade.

ACCOUNTING AND BUSINESS PRACTICE

PROFESSOR P. E. PETERSON

MR. THAIN

SHORT PRACTICAL COURSES

The aim in these courses is to develop the student quickly to assume positions as bookkeepers and office employees. Thoro drill in principles, and abundant practice in the making of entries in modern books of account and in the preparation of statements are given.

Accounting practice periods extend thru the fourth,

fifth and sixth hours daily, except the chapel and student body periods on Tuesday and Thursday. All accounting practice work should be done during these hours.

a. **ELEMENTARY BOOKKEEPING.** Thoro drill in the principles of double entry and in the preparation of financial statements. Twelve hours' practice work. Fall term. Three credits.

Lec. 11:20 Tuesday.

Mr. Thain

b. **INTERMEDIATE BOOKKEEPING.** A continuation of course A. Bookkeeping for a wholesale business. Emphasis is laid on labor saving devices and analysis of statements. Twelve hours' practice work. Winter and Spring terms. Six credits.

Lec. 11:20 Tuesday.

Mr. Thain

c. **ADVANCED BOOKKEEPING.** Methods in such special business as banking, commission, real estate, railway stations, etc. The Spring term, business practice with the school offices or in them. Full year course. Twelve hours' practice work. Nine credits.

Lec. 11:20 Thursday.

Mr. Thain

d. **FARM BOOKKEEPING.** A study of the elementary principles of bookkeeping and their application to the keeping of simple farm accounts. Nine hours' practice work. Winter term. Three credits.

Lec. 12:10 Wed. Fri.

Mr. Thain

COLLEGE COURSES

One of the results of recent commercial development has been the growth in importance of accounts to business men. A knowledge of accountancy is indispensable. Business efficiency and scientific management demand that accountants be more than mere bookkeepers. Men claiming professional standing in the accounting profession must be men of broad, fundamental training in the arts and sciences as well as in the technique of their profession.

1a. **BOOKKEEPING TECHNIC.** A great number of stud-

ents who enter the college have had no previous training in bookkeeping. In order that students shall be prepared to take up the work in principles of accounting it is necessary that they first receive a thoro grounding in the technic of bookkeeping. Fall term. (If a sufficient number register it will be repeated the Winter term.) Nine hours' practice work. Three credits.

Lec. Tu. Th. 10:30. (Winter term, Lec. 9:40 Tu. Th.)

Professor Peterson

1b. PRINCIPLES OF ACCOUNTING. The fundamental principles that the accountant must use, that the manager must know in order to profit from his accounting staff, and that every investor must understand to interpret correctly financial reports. Pre-requisite, course 1a or its equivalent. Six credits.

Daily, Winter and Spring terms, 9:40

Professor Peterson

2. SYSTEMS OF ACCOUNTS. A study of the leading accounting systems. During the Fall term the time will be devoted to building and loan, life and fire insurance, banking, trust companies and department stores; during the Winter term, to electric lighting companies, street railways, steam railways, municipal, and executor's accounts. Six hours' practice work a week. Six credits.

Lec. Mon. Wed. Fri. 8:50

Professor Peterson

3. PRACTICAL ACCOUNTING. The working out of published reports and balance sheets, and the solving of practical accounting problems. The case method applied to accounting.

(Not given in 1917-18)

4a. COST THEORY. The Fall term a study will be made of the underlying principles of costs which may be applied in practice in accordance with the needs of any situation. As practice work a complete cost set will be worked out. Three credits.

Lec. Mon. Wed. Fri. 9:40

Mr. Thain

4b. **COST PRACTICE.** Typical cost systems with abundant practice in the formulation of systems and in the working out of special methods suitable to different lines of industry. Nine hours' practice work. Spring term. Three credits.
Lec. Tu. Th. 9:40

Mr. Thain

6. **AUDITING.** Auditing and investigations. In addition to theoretical study, students audit the accounts of the school offices.

(Not given in 1917-18)

7. **HOUSEHOLD ACCOUNTS.** The practical application of accounting principles to home problems. Nine hours' practice work. Spring term. Three credits.
Lec. Tu. Th. 10:30

Professor Peterson

8. **FARM ACCOUNTING.** Application of the principles of accounting to the needs of the farming business. Nine hours' practice work. Winter term. Three credits.
Lec. Tu. Th. 10:30

Professor Peterson

AGRICULTURAL ENGINEERING

AGRICULTURAL SURVEYING

PROFESSOR RAY B. WEST

1a. **FARM SURVEYING.** For students of agriculture. Practice in the handling of surveying instruments that may be purchased by the average farmer. Running of ditch lines, grading and leveling of land, retracing of section lines, and the laying out of tile drains. One recitation and two laboratory periods. Spring term. Two credits.
Wed. 8:00; Mon. Wed. 2 to 4:30

Professor West

1. **SURVEYING FOR AGRICULTURAL ENGINEERING STUDENTS.** This is a more thoro course than course 1-a, and covers in addition to the above a study of the instruments

generally used by engineers, topographic surveying, hydrographic surveying, and some mine and city surveying. Three recitations and two laboratory periods. Fall and Spring terms.

Mon. Wed. Fri. 8:00; Tu. Th. 2 to 4:30

2. CANAL AND ROAD SURVEYING. Instruction and practice in the application of the surveying methods used in the laying out and construction of canals and roads. Three recitations and two laboratory periods, one term. Three credits. Prerequisite, Surveying 1.

Professor West

3. SOIL AND OTHER AGRICULTURAL SURVEYS. The methods of preparing maps of a given agricultural area, and surveys of the various agricultural interests within the area. Three hours, one term. Two credits.

4. MAPPING. Practice in the mapping of the various kinds of surveys that may be encountered by the agricultural engineer. Three laboratory periods a week. Two credits. Given any term that a sufficient number of students apply.

Professor West

IRRIGATION AND DRAINAGE

ASSOCIATE PROFESSOR ISRAELSEN

PROFESSOR RAY B. WEST

a. FARMER'S COURSE IN IRRIGATION AND DRAINAGE. Practical information on measurement of irrigation water, construction of small headgates and ditches, methods of handling irrigation water on different types of soil, and common problems in farm drainage. Five lectures. Winter term. No credit.

Daily, 8:50

Professor Israelson

1. IRRIGATION AND DRAINAGE PRACTICE.* Water measurement, effect of soil and plant on time and frequency of

*This course is listed also as Agronomy 10, and may be applied as major or minor in the Department of Agronomy, School of Agriculture.

irrigation, duty of water, design of farm ditches and preparation of land for irrigation, pumping for irrigation, and methods of farm drainage. Designed especially for students in agriculture. Fall and Winter terms. Six credits. (To be given during Winter and Spring terms in 1918-19 and during Fall and Winter terms again in 1919-20.)

Lec. Mon. Wed. Fri. 8:00; lab. Tu. Th. 2 to 4:30

Professor Israelsen

2. **HYDRAULICS.** Laws of liquids in motion and at rest, flow in natural and artificial channels, and elementary principles of water power development. Prerequisite, mathematics 2 or its equivalent. Fall term. Three credits. (To be given during Winter term in 1918-19, and Spring term in 1919-20, and again during Fall term in 1920-21, alternating with course 4.)

Daily, 9:40

Professor West

3. **DESIGN OF DRAINAGE SYSTEMS.** Preliminary survey, location of drains, flow in drains and in open channels, and construction of drainage systems with special reference to the drainage of irrigated lands. Prerequisite, hydraulics. Spring term. Three credits.

Lec. Mon. Wed. Fri. 8:00; lab. Tu. Th. 2 to 4:30

Professor Israelsen

4. **DESIGN OF IRRIGATION SYSTEMS.** Sources of water supply, diversion works, canal alignment and cross section, flumes, drops, and spillways. Prerequisites, Hydraulics and strength of materials. Winter and Spring terms. Six credits. (To be given during Fall and Spring terms in 1918-19, Fall and Winter terms in 1919-20, and during Winter and Spring terms again in 1920-21.)

Lec. Mon. Wed. Fri. 9:40; lab. Tu. Th. 2 to 4:30

Professor West

5. **MANAGEMENT AND OPERATION OF IRRIGATION SYSTEMS.** Delivery of water to irrigators, annual water charges, operation costs. Winter term. Two credits. (To

be given during Fall term in 1918-19, and Winter term again in 1919-20, alternating with course 6.)

Lec. Mon. Wed. Fri. 11:20

Professor Israelsen

6. IRRIGATION INSTITUTIONS. Water right doctrines, laws governing the adjudication and acquirement of water rights and the distribution of water, organization of irrigation enterprises. Fall term. Two credits. (To be given during Winter term in 1918-19, and Fall term again in 1919-20, alternating with course 5.)

Lec. Mon. Wed. Fri. 11:20

Professor Israelsen

7. SEMINAR. Papers and discussions upon problems concerning some phase of irrigation or drainage development. Required of students who major in irrigation and drainage. One period. Winter term. One credit. Hour to be arranged with instructor.

Professors Israelsen and West

8. RESEARCH. Seniors who major in irrigation and drainage may elect special problems for investigation. Hours and credits to be arranged with instructor.

Professor Israelsen or West

Note—Agronomy 6 (Soils) may be applied as major or minor in the Department of Irrigation and Drainage, School of Agricultural Engineering.

RURAL ARCHITECTURE

PROFESSOR RAY B. WEST

PROFESSOR FLETCHER

1. FARM STRUCTURES. The arrangement, design, and construction of barns, stables, poultry houses, silos, etc. Winter term. Two credits.

Mon. Wed. Fri. 8:00

Professor West

3. MATERIALS OF CONSTRUCTION. The chemistry of iron, steel, the alloys, etc., and their special use in machine parts; strength, composition, and proper use of the woods, plaster, glass, glue, paints, cement, brick, etc, in building. Five hours. Fall term. Three credits.

Daily, 10:30

See Technology of Mechanic Arts 7.

4. MECHANICS OF FRAMED STRUCTURES. The strength and design of joints in timber framing. Holding power of nails, screws, drift bolts, etc. Design of beams, columns, and simple trusses in wood. Winter term. Five credits. Prerequisite, trigonometry.

Daily, 8:50

Professor West

5. CONCRETE CONSTRUCTION FOR AGRICULTURAL PURPOSES. Various mixtures of cement and their uses; the use of concrete in the making of barns, water troughs, posts, etc. Three hours. Spring term. Two credits. Laboratory fee \$1. Hours to be arranged.

Professor West

6. REINFORCED CONCRETE. The design of beams, columns, and floor slabs in reinforced concrete, and the application of the principles of design to retaining walls, cisterns, etc. Three credits.

Professor West

8. PLANNING OF FARM STRUCTURES AND HOMES. The making of plans for farm buildings, including complete specifications, cost of materials and erection. Fall term.

Mon. Wed. Fri. 12:10

Professor West

9. HOUSE BUILDING AND CONTRACTING. Various methods of construction: the frame, two brick, three brick, stucco, shingle, cement block, and stuccoed hollow tile; cost

and economy of each; interior finishing. Five hours.
Winter and Spring terms.

Daily, 10:30

Professor West

See Technology of Mechanic Arts 5.

10a. RURAL ARCHITECTURE. Architectural Composition. Study of the principles of composition as applied to buildings, emphasis being put on correction of common errors in the design of elevations. Ten hours. Fall term. Two credits.

Professor Fletcher

10b. ARCHITECTURAL COMPOSITION. Continuation of course 10a with special attention to relation of all the parts of the exterior and architectural effects in environment. Prerequisite, Course 10a. Ten hours. Winter term. Two credits.

Professor Fletcher

11. STYLES IN ARCHITECTURE. Study of the great styles or periods of architecture with special attention to those phases most vital to an understanding of modern building. Ten hours. Spring term. Two credits.

Professor Fletcher

Note—For related work in interior design and furniture and ornamental metal design see courses in Applied Art.

RURAL SANITATION

PROFESSOR GREAVES
PROFESSOR R. B. WEST
PROFESSOR HENDERSON
MR. CARTER

1. CIVIC HEALTH (*Bacteriology a.*) An elementary course dealing with bacteria in relation to agriculture. The nature, cause and prevention of communicable diseases, the sanitary necessities of the community and the individual are

considered. Three lectures. Winter term. Will be given in 1917-18 if registration justifies.

Mon. Wed. Fri. 8:50

Mr. Carter

2. PARASITOLOGY. (*Zoology 9*). Structure and life history of animal parasites. Special attention given to insects and related animals that carry organisms injurious to man and the domestic animals. Four lectures. One laboratory period. Fall term.

Lec. Mon. Tu. Wed. Th. 8:50; lab. Fri. 2 to 4:30

Mr. Sorenson

3. SANITATION (*Bacteriology 8*). Principles of sanitation; nature of disease, its spread, and means of prevention and disinfection; sanitary arranging and construction of farm buildings. Three lectures thruout the year. Six credits.

Mon. Wed. Fri. 11:20

Professor Greaves

4. SANITARY ANALYSIS (*Bacteriology 6*). Methods used by the sanitary inspector in examining water, milk, and other foods. Prerequisites, Chemistry 6 and Bacteriology 1. Three laboratory periods. Winter term. Fee \$1. Breakage déposit \$2.50.

Professor Greaves

5. DAIRY BACTERIOLOGY (*Bacteriology 5a*). The bacteria of milk, butter, and cheese; communicable diseases in their relation to the dairy; contamination by air, water, utensils; desirable and undesirable fermentation. Two lectures. Fall term. No fee.

Tu. Th. 8:00

Mr. Carter

6. RURAL WATER SUPPLY AND WASTE DISPOSAL. Methods of (a) supplying farm and rural communities with sanitary water; (b) handling waste of the farm and small town.

Professor R. B. West

7. DAIRY BACTERIOLOGY LABORATORY (*Bacteriology 5b*) Methods used in the bacteriological examination of milk and dairy products. May accompany Dairy Bacteriology 5. Three laboratory periods. Fall term. Fee \$1. Breakage deposit \$2.50.

Mon. Wed. Fri. 2 to 4:30

Mr. Carter

8. SANITARY STATISTICS (*Bacteriology 9*). Vital statistics showing the effects of sanitary precautions upon health in cities and rural communities. Two lectures. Spring term. No fee.

Tu. Th. 8:00

Mr. Carter

AGRONOMY*

PROFESSOR HARRIS

ASSISTANT PROFESSOR STEWART

MR. BRACKEN

MR. PITTMAN

MR. MAUGHAN

MR. BUTT

a. ELEMENTARY AGRONOMY. Practical information on crops and soils for short practical-course students. Lectures, recitations, and laboratory work. Four lectures and one laboratory. Winter term.

Lec. Mon. Tu. Wed. Fri. 11:20; lab. Th. 2 to 4:30

Mr. Bracken

1. CEREAL CROPS. The history, cultivation, production, and marketing of cereal crops; a basis for judging plant products. Four lectures and one laboratory. Fall term.

Lec. Mon. Tu. Th. Fri. 8:30; lab. Wed. 2 to 4:30

Professor Stewart

*Farm Management subjects may be used toward a major in Agronomy

2. **ROOT CROPS.** Sugar-beets, potatoes, mangels, turnips, and other root crops. Culture, methods, market types, and commercial possibilities are studies in detail. Four lectures and one laboratory. Winter term.

Lec. Mon. Tu. Th. Fri. 8:50; lab. Wed. 2 to 4:30

Professor Stewart

3. **FORAGE AND MISCELLANEOUS CROPS.** Alfalfa, clovers, grasses, and other crops. Methods of handling hay, meadow and pasture management, and soiling crops are discussed. Four lectures and one laboratory. Spring term.

Lec. Mon. Tu. Th. Fri. 8:50; lab. Wed. 2 to 4:30

Professor Stewart

4. **JUDGING MARKET TYPES OF CROPS.** The various methods of scoring grains and other crops; judging crops and identifying varieties: types demanded by the market. Prerequisite, Agronomy 1. One lecture and two laboratories. Spring term.

Lec. Wed. 12:10; lab. Tu. Th. 2 to 4:30

Professor Stewart

5. **SEEDS AND WEEDS.** Seeds and their impurities; quality and preservation of seeds; their storage, shrinkage, vitality, etc.; the common weeds of Utah; methods of identifying and eradicating them; field work. Prerequisites, Botany 1 and Agronomy 1. One lecture and two laboratories. Fall term.

Lec. Wed. 12:10; lab. Tu. Th. 2 to 4:30

Professor Stewart

6. **SOILS.** Review of the entire field of soil study; designed as a foundation course for all students of agriculture. Prerequisites, Chemistry 1. Four lectures and one laboratory. Winter and Spring terms. Six credits.

Lec. Mon. Tu. Wed. Th. 10:30; lab. Fri. 2 to 4:30

Professor Israelson and Mr. Pittman

7. **COMPARATIVE SOILS.** Soils of the world; their origin, composition, and agricultural value; soil provinces of the United States, especially those of the arid regions; the

soils of Utah, the crops adapted to them, and their treatment. Prerequisite, Agronomy 6. Two lectures and one laboratory. Fall term.

(Alternates with Agronomy 8; not given in 1917-18).

8. MANAGEMENT OF ARID SOILS. The composition, nature, and management of soils of arid regions; special attention to water relations, alkali, rotations, manure, tillage and other problems in the management of arid soils. Prerequisite, Agronomy 6. Two lectures, and one laboratory. Fall term.

Lec. Tu. Th. 10:30; lab. Fri. 2 to 4:30

Professor Stewart and Mr. Pittman

9. DRY FARMING. The methods best adapted to the growing of profitable crops on arid lands; the treatment of the soil; the soils and crops best adapted to arid-farming; the regions offering favorable conditions for its successful practice. Five lectures. Winter term.

Daily at 9:40

Mr. Bracken

10. IRRIGATION AND DRAINAGE PRACTICE. Three lectures and two laboratories. Fall and Winter terms. Six credits.

(See Irrigation and Drainage).

Lec. Mon. Wed. Fri. 8:00; lab. Tu. Th. 2 to 4:30

Professor Israelson

11. ADVANCED LABORATORY IN SOILS. Chemical and mechanical analysis or special laboratory work. Three hours or more, either term.

Professor Harris

12. SEMINAR. Current agronomic literature; agricultural problems; assigned topics. Required of seniors in agronomy; open also to juniors, one hour, each term.

Fri. 12:10

Professor Harris

13. RESEARCH. Seniors specializing in agronomy may elect research work in any branch of the subject. Time and credit to be arranged with instructor.

Professor Harris

FARM MANAGEMENT

Mr. _____

1. FARM MANAGEMENT. A survey of the business aspects of farming. The relation of capital, size and diversity of business, farm equipment, farm layout, labor, cropping systems, production costs, marketing and farm accounts, to agricultural products both general and specific. Fall term. Three credits.

Daily, 9:40

2. ADVANCED FARM MANAGEMENT. Special problems supplementing the general course will be the important consideration. Designed for students who desire additional training in the subject and who have taken or are taking the general course. Round table discussion of farm management problems relating to Utah. Current farm management literature will be discussed as well as an opportunity afforded the student to do research work. Spring term. Three credits.

Daily, 9:40

ANIMAL HUSBANDRY

PROFESSOR J. T. CAINE III

PROFESSOR CARROLL

ASSISTANT PROFESSOR ALDER

ASSISTANT PROFESSOR G. B. CAINE

c. FEEDING AND MANAGEMENT. A non-technical course dealing with the practice of feeding and management of different classes of livestock. Five lectures. Winter term. Three high school credits.

Daily, 8:00

Professor Carroll

1. MARKET TYPES. The judging of market types of horses, cattle, sheep, and swine. Some score card practice is given, but most of the work is comparative judging of

groups of animals. Three lectures and two laboratory periods. Fall or Winter term. Three credits.

Lec. Mon. Wed., Fri. 9:40; lab. Tu. Thu. 2:00 to 4:30

Professor Caine

2. BREED TYPES. The origin, history, and characteristics of the different breeds of horses, cattle, sheep, and swine, especial stress being laid upon their adaptability to Western conditions. Five lectures. Winter and Spring terms. Six credits.

Daily, 8:50

Professor Caine

3. ANIMAL NUTRITION. The anatomy and physiology of the digestive system; the purpose of nutrition; the theory and practice of feeding, with especial reference to Utah conditions. Prerequisite, Organic Chemistry or Physiology 2. Five lectures, two terms.

Daily, 8:00

(Not given in 1917-18).

3-a. PRACTICAL FEEDING. How the animal uses its feed; classes of feeds; compounding rations for different purposes and for different classes of animals. Fall term. Three credits.

Daily, 8:00

(Not given in 1918-19).

Professor Carroll

4. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. An application of the principles of breeding to practical breeding operations: the place of animal breeding on the farm; methods of selection; aids to selection; grading; cross breeding; line breeding; inbreeding; herd books; and pedigrees of noted individuals of the important breeds. Prerequisite, Zoology 3. Daily, 8:00. Spring term. Three credits.

(Not given in 1918-19).

Professor Carroll

5. ADVANCED STOCK JUDGING. The judging of groups of animals of all classes. Attendance at the State Fair and at all accessible county fairs is required. Prerequisites,

Animal Husbandry 1 and 2. Three laboratory periods. Fall term. Two credits.

Mon. Wed. Fri. 2 to 4:30

Professor Caine

6. BEEF CATTLE MANAGEMENT. The practical methods of beef production, including a consideration of range practice, feeding for market, fitting for show, and general care and management.

(Not given in 1917-18).

7. HORSE MANAGEMENT. Market types, handling of breeding and growing horses, fitting for show and sale, and practical methods of handling and training horses. Three lectures. Winter term. Two credits.

Mon. Wed. Fri. 1:30

(Not given in 1918-19).

Professor Caine

8. SWINE MANAGEMENT. The management of the breeding herd, fattening for market, and fitting for show. Three lectures. Spring term. Two credits.

Mon. Wed. Fri. 10:30

(Not given in 1918-19).

Professor Caine

9. SHEEP MANAGEMENT. General care on range and farm, fattening for market, fitting for show, and work in grading and sorting wool.

(Not given in 1917-18).

20. RESEARCH. Advanced students may elect research work in any phase of animal husbandry. Time and credit to be arranged with the department.

25. SEMINAR. Round-table discussions of current literature and special phases of animal husbandry and dairying by advanced students and instructors of the department. One meeting a week. Time to be arranged.

Professor Carroll

Assistant Professor Caine

DAIRYING

PROFESSOR CARROLL

ASSISTANT PROFESSOR G. B. CAINE

MR. BINGHAM

1. ELEMENTS OF DAIRYING. The secretion and composition of milk; testing for fat, acid, and adulterants; dairy sanitation; pasteurization; separation; making of butter and cheese. Prerequisite, Chemistry 1. Three lectures and two laboratory periods. Spring term. Three credits. Fee \$1.

Lec. Mon. Wed. Fri. 8:00; lab. Sat.

Mr. Bingham

3. DAIRY FARM MANAGEMENT. A brief review of breeds of dairy cows; starting a herd; herd management. Each student submits an original plan of a dairy farm, estimating values of property, expense of operation, and profits to be derived. Four lectures and one laboratory. Spring term. Three credits.

Lec. daily except Fri. 9:40; lab. to be arranged.

Professor Caine

4. BUTTERMAKING. Designed to meet the needs of creamery men. Prerequisite, Dairying 1. Time and credit to be arranged.

Mr. Bingham

7. RESEARCH WORK. Important dairy subjects; a digest of recent dairy work of the experiment stations. For advanced students. One hour thruout the year. Two credits.

POULTRY HUSBANDRY

ASSISTANT PROFESSOR ALDER

MR. MADSEN

a. ELEMENTARY POULTRY. Practical information on the various phases of poultry management for short prac-

tical-course students. Four lectures and one laboratory. Winter term. Three credits. Time to be arranged.

Professor Alder

1. GENERAL POULTRY. Breeds, judging, breeding, incubation, brooding, housing, feeding, and marketing. Four recitations and one laboratory period. Fall term. Three credits. Laboratory fee \$1.

Lec. Mon. Tu. Wed. Fri. 8:00; lab. Tu. 2:00 to 4:30.

Professor Alder

1-a. Same course as 1, except no laboratory work is given. Three lectures. Fall term. Two credits.

Professor Alder

2. INCUBATION AND BROODING. Practical and experimental work: the factors which influence the hatching quality of eggs. Prerequisite, Poultry 1. Three recitations. Spring term. Two credits.

Mon. Wed. and Fri. 8:00

Professor Alder

3. POULTRY MANAGEMENT. The housing, care, feeding, and management of different breeds, under Western conditions. Prerequisite, Poultry 1. Two recitations, and laboratory work by special appointment. Winter term. Two credits. Time to be arranged.

Professor Alder

4. BREEDS AND BREEDING. The origin and development of the more important breeds and varieties of poultry; practice in judging; a review of the literature on breeding for utility and exhibition. Prerequisite, Poultry 1. Two recitations and one laboratory period. Winter term. Two credits.

Professor Alder

5. ANATOMY, PHYSIOLOGY, AND DISEASES OF POULTRY. The causes of disease and methods of identification and prevention. Prerequisite, Poultry 1. Three recitations, Spring term. Two credits.

Professor Alder

ART

PROFESSOR POWELL

FINE ART

There is a twenty-five-cent fee per laboratory credit hour for each course.

1. FREE HAND DRAWING. Nature study visualization, arrangement, and composition. Three two-hour periods a week. Prerequisite to Applied Art 21. Fall term. Two credits.

Sec. 1. Daily, 8:50 to 10:30; sec. 2. Daily, 10:30 to 12:10

2. FREE HAND DRAWING. For students in mechanic arts. Ten hours weekly. Two credits each term.

Daily, 2 to 4:30

3. ADVERTISING. The principles of advertising arrangement. Each term. Five hours for one credit.

Daily, 2 to 4:30

4. FREE HAND DRAWING. The study of plants, animals, insects; for students in agriculture. Ten hours weekly, two credits each term.

Daily, 2 to 4:30

5. STUDIO. *Before registering students must consult with instructor in charge.*

Daily, 2 to 4:30

Sec. 1, one credit; sec. 2, two credits; sec. 3, three credits. (*five hours in studio for one credit.*) Students may elect more than one section.

5a. Drawing from antique, animal life, still life, and ornament.

5b. Painting in oil, water color, or pastel from still life, landscape, animal, and the draped figure.

5c. Sculpture. Modeling in wax and clay, and casting in plaster, from ornament, antique, and life.

5d. Book, magazine, and newspaper illustration, including cartooning and caricature.

5e. Illustration for advertising. Designing posters

and pictorial advertisements for newspapers, magazines, etc. Art 27g must accompany or precede this course for at least one term.

5f. Illustration for scientific purposes, conjointly with the departments of agronomy, botany, entomology, etc.

5g. Pictorial composition and critical judgment of pictures. Adapted to the layman, the photographer, and the painter.

Daily, 2 to 4

For History of Art see department of history; for Aesthetics see department of English.

APPLIED ART

PROFESSOR FLETCHER

A fee of twenty-five cents per credit hour is charged for each course except 27 b, c, and d, where the fee is 50c.

21. Continuation of Art 1. Design with special attention to pattern and art needlework. Two periods daily, Winter term. Two credits.

Professor Powell

22. (a) House Furnishing and Decoration. Consideration of the principles governing good taste in house exteriors, wall decoration, floors, ceilings, color, and furniture. Three lectures and four laboratory periods. Fall term.

Lec. Mon. Tu. Th. 11:20; lab. Wed. Fri. 11:20 to 1:00

Professor Fletcher

22. (b) Textiles, and drapery, ceramics, pictures and casts, flower arrangement, and the problems of assembling all features which go to make the home beautiful. Three lectures and four periods. Winter term.

Lec. Mon. Tu. Th. 11:20; lab. Wed. Fri. 11:20 to 1:00

Professor Fletcher

25. Interior design and decoration. For tradesman. Wall tinting and decoration, house painting, wood finishing, furnishing and draping. Hours and credit same as in Art 27.

Professor Fletcher

26. Furniture and ornamental metal design. Students

may emphasize either according to special interests. Four credits. Hours arranged as in Art 27.

Professor Fletcher

27. STUDIO. *Hours and credit must be arranged with instructor in charge.*

Sec. 1, one credit; sec. 2, two credits; sec. 3, three credits. (*five hours' work in the studio each week for one credit each term.*)

27. (a) Pottery.

27. (b) China decoration and design.

27. (c) Copper, brass, and silver smithing. The underlying principles of metal treatment, including sawing, raising, soldering, repousse and enameling.

27. (d) Jewelry. Stone setting, hard soldering, enameling, repousse, chasing, casting, etc.

27. (e) Basketry, weaving, and bead work.

27. (f) Leather work, including tooling and modeling, etching, piercing, applique, inlay, dyeing, etc.

27. (g) Show card and sign writing.

27. (h) Advanced fabric decoration, combining block printing, stenciling, and needle craft.

27. (i) Wood ornamentation, including carving, inlay, jesso work, and staining.

27. (j) Architectural composition. Advanced. Prerequisite, Rural Architecture 10 and 11.

27. (k) Special design for crafts for commercial purposes. Parallel to Art Needlework.

Hour elected any day from 8:50 to 11:20 and 2 to 4:30

Professor Fletcher

Note—One or more examples of each student's work may be retained by the department, but in such cases materials furnished by the student are paid for.

For work in costume design and history of the house and furniture see department of Domestic Art and department of History respectively.

BACTERIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR GREAVES

MR. CARTER

MR. ANDERSON

a. **SANITATION.** An elementary course dealing with bacteria in relation to agriculture. The nature, cause and prevention of communicable diseases, the sanitary necessities of the community and the individual are considered. Three lectures. Winter term. Will be given in 1917-18 if registration justifies.

Lec. Mon. Wed. and Fri. 8:50

Mr. Carter

1. **GENERAL AGRICULTURAL BACTERIOLOGY.** Biology and significance of bacteria. Introduction to microbiology of air, water, soil and milk considered in relationship to the various phases of agriculture. Three lectures. Two laboratory periods. Laboratory fee \$1. Breakage deposit \$2.50

Section 1. Lec. Mon. Wed. Fri. 10:30; lab. Wed. Fri. 2 to 4:30.
Fall term.

Section 2. Lec. Mon. Wed. Fri. 8:00; lab. Mon. Wed. 2 to 4:30
Spring term.

Professor Greaves and Mr. Carter

2. **GENERAL BACTERIOLOGY.** Biology and significance of bacteria, microbiology of air, water, milk, food, and of human and animal diseases. Three lectures. Two laboratory periods. Winter term. Laboratory fee \$1. Breakage deposit \$2.50.

Lec. Mon. Wed. Fri. 9:40; lab. Tu. Th. 2 to 4:30

Professor Greaves and Mr. Carter

3. **PATHOGENIC BACTERIOLOGY.** Fundamentals, morphology, biology, function, etc. The pathogenic bacteria are considered in relation to specific diseases especially with regards the subject of immunity. Three lectures. Two

laboatory periods. Winter term. Laboratory fee \$1. Breakage deposit \$2.50.

Lec. Mon. Wed. Fri. 10:30; lab. Wed. Fri. 2 to 4:30

Professor Greaves

4a. SOIL BACTERIOLOGY (lecture.) Bacteria are considered in relation to soil fertility. Influence of physical and chemical properties of a soil upon its bacterial life; ammonification, nitrification, and nitrogen fixation. Chemical methods of interpreting bacterial fermentations. Two lectures. Spring term. No fee.

Lec. Tu. Th. 11:20

Professor Greaves

4b. SOIL BACTERIOLIGY (laboratory). Methods used in soil bacteriological investigation. May accompany preceding course. Three laboratory periods. Spring term. Fee \$1. Breakage deposit \$2.50.

Mon. Wed. Fri. 2 to 4:30

Professor Greaves

5a. DAIRY BACTERIOLOGY (lecture). The bacteria of milk, butter and cheese; communicable diseases in their relation to the dairy; contamination by air, water, utensils; desirable and undesirable fermentation. Two lectures. Fall term. No fee.

Lec. Tu. Th. 8:00

Mr. Carter

5b. DAIRY BACTERIOLOGY (laboratory). Methods used in the bacteriological examination of milk and dairy products. May accompany Bacteriology 5a. Three laboratory periods. Fall term. Fee \$1. Breakage deposit \$2.50.

Mon. Wed. Fri. 2 to 4:30

Mr. Carter

6. SANITARY ANALYSIS. Methods used by the sanitary inspector in examining water, milk and other foods. Prerequisites, Chemistry 6 and Bacteriology 1. Time and credit to be arranged. Fee \$1. Breakage deposit \$2.50.

Professor Greaves

7. RESEARCH. The laboratory and library facilities are

especially arranged for advanced students in bacteriological investigation in agriculture, household science, the industries, sanitary science, and veterinary science. Time and credit to be arranged.

Professor Greaves

8. SANITATION. Principles of sanitation; nature of disease, its spread, and means of prevention and disinfection; sanitary arranging and construction of farm buildings. Three lectures through the year. Six credits. No fee.

Lec. Mon. Wed. Fri. 11:20

Professor Greaves

9. SANITARY STATISTICS. Vital statistics showing the effects of sanitary precautions upon health in cities and rural communities. Two lectures. Spring term. No fee.

Lec. Tu. Th. 8:00

Mr. Carter

10. PHYSIOLOGICAL CHEMISTRY. (Chemistry 7.) The transformations going on in the plant and animal organism. Five lectures. Spring term. No fee.

Lec. Daily 8:00

Professor Greaves

11. PHYSIOLOGICAL CHEMISTRY (laboratory). May accompany the preceding course. Two laboratory periods. Spring term. Fee \$1. Breakage deposit \$2.50.

Mon. Wed. 2 to 4:30

Mr. Carter

BOTANY

PROFESSOR HILL

ASSISTANT PROFESSOR RICHARDS

MR. WILSON

MR. NICHOLS

1. GENERAL BOTANY.

a. Structural Botany and ecology. The nature and function of plant structures and the relation of these to environment.

b. Morphology. Types of plants. Development of biological principles and concepts. Special study of economic forms. Three lectures and two laboratory periods, thru two terms. Six credits. Lab. fee \$2, deposit \$2.

Section 1. Fall and Winter terms. Lecture Mon. Wed. Fri.
8:50

Laboratory, any two afternoons, 2 to 4:30

Professor Richards and Mr. Wilson

Section 2. Winter and Spring terms. Lecture Mon. Wed. Fri.
9:40

Laboratory, any two afternoons, 2 to 4:30

Mr. Wilson and Mr. Nichols

Note—In Section 2, Botany 1b will be given the Winter term, and Botany 1a the Spring term.

2. FLOWERING PLANTS. Our common plants and their relationships; special emphasis on the economic plants. Two lectures and two or three laboratory periods. Spring term. Two or three credits. Deposit \$2.

Lectures Tu. and Th. 8:50

Laboratory, Sat. 8:00 to 1:00, and any afternoon from 2 to 4:30

Professor Richards and Mr. Wilson

2a. A continuation of course 2, extending thru the summer: consideration of the general summer flora or of particular families and their distribution. One, two or

three credits. Prerequisite, Botany 2. This course may be taken thru correspondence.

3. MATERIALS AND METHODS IN BOTANICAL TECHNIQUE. Collection and preservation of botanical specimens. Preparation of botanical materials and slides for class room study and exhibition purposes. Designed particularly for teachers of botany. A laboratory course. One, two or three credits. Any term. Fee \$1. Deposit \$2.

Professor Richards and Mr. Wilson

4. PLANT PHYSIOLOGY. A study of the life functions of plants and plant parts. Relation of these functions to the quantity and quality of crops. Three lectures and two laboratory periods. Fall and Winter terms. Six credits. Fee \$2. Deposit \$2.

Lec. Mon. Wed. Fri. 8:00; lab. Mon. or Tu. and Th. or Fri. 2 to 4:30

Professor Hill and Mr. Wilson

5. PLANT PATHOLOGY. The history, nature, cause, and control of plant diseases. Two lectures and two laboratory periods. Fall and Winter terms. Two credits each term. Students may elect the course for one or two terms. Fee \$1. Deposit \$2.

Mon. Wed. Fri. 8:00; lab. Wed. and one other afternoon 2 to 4:30

Professors Hill and Richards

5c. PRACTICAL PLANT PATHOLOGY. Common economic diseases and their control, etc. For practical course students. Wednesday afternoon. Winter term, 2 to 4:30.

Professors Hill and Richards

6. ECONOMIC BOTANY.

(Not given in 1917-18).

7. ECOLOGY. The distribution and adaptation of plants in relation to temperature, moisture, light, soil, alkali, and other environmental factors.

(Not given in 1917-18).

8. CROP ECOLOGY. The relation of environment to crop production.

(Not given in 1917-18).

9. FORESTRY. The principles of silviculture and forest management, and western forest and range problems. Three lectures. Spring term. Two credits.

Lec. Tu. Th. 10:30

Professor Hill

10. SEMINAR. Discussion of current literature. One hour a week thru the year. Two credits. Time to be arranged.

Professor Hill

11. RESEARCH. Open to juniors and seniors in botany. Time and credit to be arranged.

Professors Hill and Richards

CHEMISTRY

PROFESSOR PORTER*

PROFESSOR WEST

PROFESSOR _____

PROFESSOR GREAVES

ASSISTANT PROFESSOR HIRST

1. INORGANIC CHEMISTRY. The properties and preparation of the elements and their ordinary compounds. The quantitative laws of chemical combinations and their applications. The effects of temperature and concentration in displacing chemical equilibria. This course is adapted to the requirements of students who have not had high school chemistry. Three lectures and six hours of laboratory work, two terms. Six credits.

Sec. 1. Mon. Wed. Fri. 10:30, Fall and Winter terms.

Sec. 2. Mon. Wed. Fri. 11:20. Winter and Spring terms.

Laboratory for either section Mon. Wed. 2:00 to 4:30; or Tu.

Th. 2 to 4:30

*On leave.

1a. INORGANIC CHEMISTRY. A brief course devoted to the general principles of inorganic chemistry. Prerequisite, high school chemistry. Two lectures and one laboratory period a week, two terms. Four credits.

Sec. 1. Tu. Th. 10:30. Fall and Winter terms.

Sec. 2. Tu. Th. 11:20. Winter and Spring terms.

Laboratory any afternoon, 2 to 4:30

2. ORGANIC CHEMISTRY. Fundamental principles of organic chemistry. A study of the aliphatic and aromatic hydrocarbons and their derivatives. The chemistry of fats, carbohydrates and proteins. Prerequisite, Chemistry 1 or 1a. Three credits.

Daily, 9:40, either term

3. ORGANIC CHEMISTRY. A laboratory course dealing with the fundamental principles of organic chemistry. This course is open to those students only who take or have taken Chemistry 2. Nine hours a week either term. Two credits.

Mon. Wed. Fri. 2 to 4:30

4. QUALITATIVE ANALYSIS. A course in the theory and practice of inorganic qualitative analysis. The student is required to become familiar with the reactions of the common ions and to apply the principles involved in chemical equilibria, ionization, hydrolysis, oxidation and reduction.

Text: Stieglitz "Qualitative Analysis."

One lecture and nine hours of laboratory work a week thruout the year. Six credits. Prerequisites, Chemistry 1 or 1a and Physics 1.

Lec. Tu. 8:00

6. QUANTITATIVE ANALYSIS. One lecture and nine hours of laboratory work a week thruout the year. Six credits. Prerequisite, Chemistry 1 or 1a.

Lec. Th. 8:00

7. PHYSIOLOGICAL CHEMISTRY. The chemical transformations occurring in plant and animal organisms. Spring

term. Three credits. Prerequisite, Chemistry 2.

Daily, 8:00

8. INDUSTRIAL CHEMISTRY. Industrial applications of air, water, fertilizers, fuels, gases, petroleum, mortars, cements, explosives, oils, and paints. Three lectures a week throuout one term. Two credits. Prerequisite, Chemistry 2. Winter term.

Mon. Wed. Fri. 8:00

9. RESEARCH. Time and credit to be arranged with the instructor.

10. SPECIAL COURSE IN QUANTITATIVE ANALYSIS. Time and credit to be arranged with the instructor.

- a. Water analysis,
- b. Food analysis,
- c. Soil analysis,
- d. Urine analysis,
- e. Gas analysis.

12. GENERAL ORGANIC REACTIONS. A consideration of the more important reactions employed in synthetic organic chemistry. Two lectures a week. Fall term. One credit. Prerequisite, Chemistry 2.

Lec. Tu. Th. 8:50

14. THE NITROGEN COMPOUNDS. A course devoted primarily to the proteins, alkaloids, and purine derivatives. Two lectures a week. Winter term. One credit. Prerequisite, Chemistry 2.

Lec. Tu. Th. 8:50

15. ORGANIC PREPARATIONS. An advanced laboratory course in the practical methods of synthetic organic chemistry. Nine hours a week, either term. Two credits.

16. PHYSICAL CHEMISTRY. The Kinetic theory, solutions, thermo-chemistry and electro-chemistry. Three lectures a week, two terms. Four credits. Prerequisites, Chemistry 1 or 1a and Physics 1.

17. HISTORY OF CHEMISTRY. Two lectures a week thruout the year. Four credits.

Lec. Tu. Th. 8:00

DOMESTIC ART

PROFESSOR COOK
MISS RICHARDSON
MISS DANIELS

c. ELEMENTARY DRESSMAKING. The making and use of patterns and the choosing and economical cutting of materials. Each student makes a house dress, a woolen skirt, and a shirt waist or middy blouse. Prerequisite, plain sewing. Winter term. Two credits.

Daily, 10:30 to 12:10

Miss Richardson

d. ELEMENTARY DRESSMAKING. A continuation of course c. Each student fits and finishes at least two dresses. Spring term. Two credits.

Daily, 10:30 to 12:10

Miss Richardson

1. ART NEEDLE WORK. The application of color and design to textiles; the fundamental stitches of needlework; the marking of household linen; French embroidery; the designing and making of a sofa pillow cover or table runner. Prerequisite, Art 1 and 21. Parallel Art 27k. Fall term. Two credits.

Mon. Wed. Fri. 11:20 to 1:00

Professor Cook

2. ART NEEDLE WORK. A continuation of course 1. Prerequisites, the same as Domestic Art 1. Winter term. Two credits.

Mon. Wed. Fri. 11:20 to 1:00

Professor Cook

3. ADVANCED DRESSMAKING. Materials,—their economic, artistic, and hygienic values; history of costume; modeling in paper and crinolin from copies and original

designs; the making of two costumes. Prerequisites, Art 1 and 21. Lectures and laboratory work. Six credits.

Sec. 1. Daily, 9:40 to 11:20. Fall and Winter terms.

Sec. 2. Daily, 2 to 3:40. Winter and Spring trms.

Professor Cook

4. MILLINERY, ELEMENTARY. Designing and drafting patterns for hats; construction of frames of buckram, rice net, and wire; the covering of foundations with velvet, silk, nets, straws, etc. Making and placing of trimmings. Renovating. Two credits.

Daily, 2 to 3:40, either term.

Miss Richardson

5. DESIGNING AND MODELING. Line and design as adapted to various figures; copying of designs in crinoline or cambric; modeling and working out of original designs. Domestic Art 11 prerequisite. Spring term. Two credits.

Daily, 9:40 to 11:20

Professor Cook

6. MILLINERY. Demonstrative discussions and practical work; lines and color combinations most suited to the individual; the designing and construction of hats, trimmings and flowers. Prerequisite, Domestic Art 4. Fall term. Two credits.

Daily, 10:30 to 12:10

Miss Richardson

7. TEXTILES. The history of the textile industry, including a discussion of the principles of spinning, weaving, printing, dyeing and bleaching; a study of economic factors including home industries and the rise of the factory system; the properties of each textile and appearance; adaptation to different types of clothing. Prerequisite, Economics 2. Spring term.

Mon. Wed. Fri. 9:40

Professor Fletcher

8. TEXTILES. Microscopic and chemical methods for the identification and estimation of the textile fibers, including complete quantitative determinations of cotton, wool, silk, and linen in mixed goods; the detection of mineral matter and other foreign substances in fabrics. Prerequisite,

sites, Domestic Art 7 and Chemistry 2. One lecture and six hours of laboratory work a week. Winter term. Two credits.
Tu. Th. 2 to 4:30

9. SURVEY. A critical review of domestic art as given in other institutions. Spring term. Three credits.
Daily, 8:50

Professor Cook

10. FULL TIME COURSE IN DRESSMAKING. This course is planned to give thoro and practical training to those who wish to become seamstresses or dressmakers. The classes are organized in September, November, February, and April, and continue for nine consecutive weeks. Daily sessions from 9 a. m. to 12 a. m., and from 1 to 5 p. m. All applicants for full time courses should be at least sixteen years of age and experienced in plain hand and machine sewing. The number of students is restricted to twenty; therefore, application should be made at an early date. Fee \$10.

The instruction consists of the selecting of materials for house dresses; the drafting, fitting, and making of one house dress or shirt waist suit; and the drafting and designing of skirts, waists, sleeves, collars, children's clothing, modeling in paper and crinoline, etc.; the study of form and color; the combination of different dress fabrics and trimmings; design and simple hand decoration; the proper selection and use of striped and figured materials; draperies and their uses; consideration of textures best adapted to the reception and evening dress; and the planning, drafting, cutting, fitting, and finishing of at least four one-piece gowns.

Miss Daniels

11. COSTUME HISTORY AND DESIGN. Fall and Winter terms. Four credits.
Daily, 9:40 to 11:20

Professors Powell and Fletcher

ECONOMICS

PROFESSOR HENDRICKS

ASSISTANT PROFESSOR BROOKE

a. **ECONOMICS OF BUSINESS.** An elementary course dealing with the laws of economics, and designed for the students in the short, practical courses. Winter term. Three credits.

Daily, 2:00

b. **SALESMANSHIP.** An elementary course in salesmanship for short practical students. Spring term. Three credits.

Daily, 2:00

1. **ELEMENTS OF ECONOMICS.** The laws of man's economic activity, as the basis of a scientific understanding of industrial conditions. Topics: economic want, value, rent, wages, profits, interest. Thruout the year. Six credits.
Mon. Wed. Fri. 12:10

2. **GENERAL ECONOMICS.** A comprehensive study of the fundamentals of economic theory. Six credits.

Sec. 1, daily, 10:30, Fall and Winter terms.

Sec. 2, daily, 10:30, Spring term, and daily, 11:20, Fall term.

Sec. 3, daily, 11:20, Winter and Spring terms.

3. **HISTORY OF COMMERCE.** Its development in Egypt, Greece, Rome, Florence, Medieval Europe; the commercial nations of modern times. Six credits.

(Not given in 1917-18).

4. **MARKETING OF FARM PRODUCTS.** The best methods of selling farm products, considered first from the viewpoint of the consumer, and secondly from that of the producer. This includes a discussion of municipal markets, the cost of marketing, the prices of farm products, and various forms of farmers' cooperative selling organizations. Winter and Spring terms. Six credits.

Daily, 9:40

5. **INDUSTRIAL RESOURCES.** The resources of the United

States, with special emphasis on Western agricultural, pastoral, mineral, and soil and water resources.

(Not given in 1917-18). See *Geology* 3.

9. ADVERTISING. The literature and make-up of advertising; the advertisements of newspapers and magazines; the psychology of advertising, and practical experience in the writing of advertisements. Fall term. Three credits.

Daily, 9:40

12. AGRICULTURAL ECONOMICS. Rural credits. The economic principles of farm management, estate management, and agrarian legislation, especially adapted to Western conditions. Special attention given to the Federal Farm Loan Act. Winter term. Three credits.

Daily, 11:20

15. A RESEARCH COURSE IN ECONOMICS. Time and credit to be arranged with the instructor.

16. COLLEGE ECONOMIC READINGS. Discussion of current economic literature. One credit, each term. Open to juniors and seniors.

See Sociology, for related work.

EDUCATION*

PROFESSOR HICKMAN

PROFESSOR BJARNASON

1. PSYCHOLOGY. This course consists of a thoro discussion of the fundamental principles of the mind. Discussions, reports, and experimental work constitute the methods of the course. Two recitations a week, and two hours' laboratory work thruout the year. Six credits.

Rec. Tu. Th. 8:50; lab. Fri. 2 to 4

2. PRINCIPLES OF EDUCATION. The work of this course is based upon the latest achievements in education and psy-

*Given under the direction of the Brigham Young College.

chology. The last ten weeks of the course will be a discussion of high school and district school methods. Individual problems will be worked out by students. Prerequisite, Course 1. Six credits.

Rec. Mon. Wed. Fri. 8:50

3. SECONDARY TRAINING. The course consists of (a) a review of modern methods of teaching high school subjects; (b) assisting regular teachers and observing the teaching in the local high schools; (c) practice teaching in the student's major subject in both junior and senior high school departments under the supervision of the director of student-teaching and critic teachers of the College; (d) practice in directing some phase of the social or athletic activities of high school pupils. The course is for junior and senior college students only. Six credits.

Of the thirty hours of educational training required for teaching, twelve may be taken in the Social Science Group.

ELOCUTION AND PUBLIC SPEAKING

ASSISTANT PROFESSOR HUNTSMAN

1. ELOCUTION. Vocal expression. A study of the principles of expressive reading and the vocal interpretation of literature with supplementary work in voice development and bodily expression. Open to Winter course students. Winter term. Six credits.

Mon. Wed. Fri. 12:10

2. ELOCUTION. Vocal interpretation. The aim of this course will be to develop emotional power, literary appreciation and the ability to interpret the printed page.

Fall term: lyrics and ballads.

Winter term: short stories. (*Open to Winter course students.*)

Spring term: scenes from Shakespeare's plays.

Prerequisite, Elocution 1. Four credits.

Tu. Th. 11:20

3. **ELOCUTION.** Dramatic interpretation. A laboratory course in the modern drama. Plays of Ibsen, Sudermann, Hauptmann, Maeterlinck, Shaw, Galsworthy, Yeats, Synge, and other contemporary dramatists will be studied from the interpretive side. Members of the class will vocally interpret characters and scenes assigned for individual study and several plays will be presented to the public as part of the class work. Six credits. Prerequisite, Elocution 1 and 2.

Mon. Wed. Fri. 10:30

4. **EXTEMPORANEOUS SPEAKING.** Practice in extemporaneous speaking on subjects of current interest. Supplementary work in voice development and the correction of defects in speech. Occasional practice assignments in reading. Thruout the year. Open to Winter course students. Four credits.

Two sections: Mon. Wed. 11:20; Tu. Th. 10:30

5. **PUBLIC SPEAKING.** A study of the principles of effective public speaking with practice in the preparation and delivery of speeches, adapted to various audiences. Occasional practice assignments from the masterpieces of oratory. Prerequisite, Extemporaneous Speaking. Winter term. Three credits.

Daily, 9:40

ENGLISH

PROFESSOR PEDERSEN
ASSISTANT PROFESSOR OGBURN
ASSISTANT PROFESSOR KYLE

Papers written by students for other departments constitute a large part of the theme work required in courses in English.

b. Emphasis upon the practical phases of first and second year high school English. *Fall term:* study of easy classics in prose and poetry; oral reading of them; dictionary work. *Winter term:* study of the most useful prin-

ciples of spelling and grammar. *Spring term*: letter writing; speaking before the class. Three credits a term.
Daily at 8:00

Mr. _____

c. CLASSICS AND COMPOSITION. Practical courses corresponding to third year high school English. *Fall term*: study of more difficult classic than those in English b. *Winter term*: study of simple rhetorical principles underlying composition; theme work. *Spring term*: speaking similar to that done in English b, except of a higher standard. Two credits a term.

Mon. Wed. Fri. 8:00

Assistant Professor Kyle

6. HISTORY OF ENGLISH LITERATURE. The literature of Great Britain from the Anglo-Saxon period to the present day, with emphasis upon the post-Elizabethan period. Three hours thruout the year. Six credits.

Sec. 1. Mon. Wed. Fri. 8:50

Assistant Professor Ogburn

Sec. 2. Mon. Wed. Fri. 10:30

Assistant Professor Kyle

7. RHETORIC.

Business English. Four credits.

Sec. 1: Fall and Winter terms.

Mon. Wed. Fri. 10:30

Professor Pedersen

Sec. 2. Winter and Spring terms.

Mon. Wed. Fri. 10:30

Assistant Professor Ogburn

Literary Forms. Descriptions, narratives, stories. Runs thruout the year. Four credits.

Sec. 3: Tu. Th. 8:50

Assistant Professor Ogburn

Exposition. Outlining, note-taking, writing of reports and lectures. Runs thruout the year. Four credits.

Sec. 4. Tu. Th. 9:40

Sec. 5. Tu. Th. 11:20

Assistant Professor Kyle

N. B. Prerequisite for all the following courses, English 6 and 7. Prerequisite, in addition, for 9, 10, 11, 13, 25, 26, and 27, one year of French or German.

9. CONTEMPORARY LITERATURE. Recent plays, essays and novels dealing with present problems. Runs thruout the year but students may register for any term. All must consult instructor before enrolling. Six credits.

Tu. Th. 8:50

Professor Pedersen

10. SHAKSPERE. A detailed study, in class, of six plays: Macbeth, Henry the Fourth, King Lear, Hamlet, Othello, Twelfth Night. Collateral reading: various other Shakspearean plays as well as a biography. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 9:40

Professor Pedersen

11. THE MODERN DRAMA. The stage of today,—recent and living dramatists: plays by Ibsen, Strindberg, Hauptmann, Tchekhof, Shaw, Galsworthy, Synge, and others. Two hours thruout the year. Four credits.

(Not given in 1917-18)

12. AMERICAN LITERATURE. History and development of American letters from colonial times to the present day.

(Not given in 1917-18)

13. THE ENGLISH NOVEL. Its origin, development, and most important types. Two hours thruout the year. Four credits.

(Not given in 1917-18)

14. ENGLISH PROSE OF THE NINETEENTH CENTURY. The novel and the essay. Runs thruout the year. Six credits.

Mon. Wed. Fri. 8:50

Assistant Professor Kyle

15. WORLD MASTERPIECES. Careful reading of literature outstanding in the world's history, such as the Odyssey, the Divine Comedy, and Don Quixote. Fall term. Two credits.

Mon. Wed. Fri. 9:40

Assistant Professor Ogburn

20. DEBATING. Two hours thruout the year. Four credits.

Sec. 1. Tu. Th. 9:40

Professor Pedersen

Sec. 2. Tu. Th. 10:30

Assistant Professor Ogburn

21. AESTHETICS. The principles of beauty as fundamental to all the arts. Spring term. Three credits.

Daily, 11:20

Professor Fletcher

25. JOURNALISM. News collecting, history of journalism in America, writing of special feature articles, study of journalistic markets especially those of agricultural journalism, and writing of booster articles. Lectures and practical work. Two hours a week thruout the year. Four credits.

Tu. Th. 8:50

Professor Arnold

26. MAGAZINE WRITING. The writing of the special article, literary criticism, and the personal essay; an analytical study, in addition, of examples. Literary markets. Runs thruout the year. Four credits.

Tu. Th. 11:20

Professor Pedersen

27. THE SHORT STORY. Study of its form; analysis of older and present-day examples; practice in writing two stories. Winter term. Two credits.

Mon. Wed. Fri. 9:40

Assistant Professor Ogburn

ENTOMOLOGY

PROFESSOR HENDERSON

MR. HAGAN

MR. SORENSON

MR. LARSON

1. ECONOMIC ENTOMOLOGY. A general study of insects in their relation to man and his products as well as the best means of controlling injurious insects. Five hours. Winter term. Three credits.

Daily 9:40

Mr. Larson

2. SYSTEMATIC ENTOMOLOGY. Structure and classification of insects. Laboratory work: dissecting and classifying insects that have been collected, mounted and identified by the students. Two lectures and one laboratory period thruout the year. Six credits. Laboratory fee \$1.

Lec. Tu. Thu. 8:50; lab. Tu. 2 to 4:30

Professor Henderson and Mr. Larson

3. ADVANCED ECONOMIC ENTOMOLOGY. Full treatment of insects of the intermountain region and of methods of control used in this and other regions with their results. Two lectures and one laboratory period thruout the year. Three or six credits. Laboratory fee \$1.

Lec. Mon. Wed. 10:30; lab. Th. 2 to 4:30

Mr. Hagan

4. ENTOMOLOGICAL LITERATURE. Each student investigates the literature on some particular insect. The general history of entomology is covered. Prerequisite, Entomology 2 or 3. Three lectures thruout the year. Six credits.

Lec. Mon. Wed. Fri. 12:10; alternates with Entomology 5

Professor Henderson

5. ADVANCED ENTOMOLOGY. Research for students intending to teach or go into government experiment station work. A thesis on the classification and general

economic consideration of some special group is required. Prerequisite, Entomology 2 or 3. Three to six credits.

Alternates with Entomology 4

See Zoology, for related work.

FARM MECHANICS

ASSOCIATE PROFESSOR HUMPHERYS

1. FARM MACHINERY. Tillage, cultivating, harvesting, pumping, and general labor saving machinery. Two recitations and one laboratory period. Winter term. Two credits. Laboratory fee \$1.

Lec. Tu. Th. 10:30; lab. Mon. or Th. 2 to 4:30

2. FARM MOTORS. The design, operation, adjustment and care of gasoline engines used on the farm, including the stationary engine, the tractor, the automobile, and motor truck. Three recitations and two laboratory periods, one term. Three credits. Laboratory fee \$2.

Winter term. Rec. Mon. Wed. Fri. 10:30; lab. Sec. 1. Tu. Th. 2 to 4:30; Sec. 2. Mon. Wed. 2 to 4:30

Spring term. Rec. Mon. Wed. Fri. 8:00; lab. Sec. 3. Tu. Th. 8 to 10:30; Sec. 4. Mon. Fri. 2 to 4:30

3. FARM MACHINERY AND FARM MOTORS. Arranged for students in agriculture. A consideration of modern farm machinery and the application of steam and gas power to the various phases of farm work. Three lectures and two laboratory periods. Fall term. Three credits. Laboratory fee \$2.

Rec. Mon. Wed. Fri. 8:00; lab. Sec. 1. Mon. Wed. 10:30 to 12:10; Sec. 2. Tu. Th. 2 to 4:30

4. FARM APPLIANCES. The fundamental principles of babbiting, soldering, pipe fitting, tube setting for steam boilers, packing valves, rope splicing and belt lacing. Two recitations and one laboratory period. Two credits. Laboratory fee \$1.

Rec. Tu. Th. 8:00; lab. Mon. or Wed. 2 to 4:30

5. **ADVANCED FARM MOTORS.** A thoro analysis of ignition devices for all gas engines, the care and repair of storage batteries, and a consideration of modern types of automobile starting and lighting systems, such as the Delco, Disco, Bijur, Gray and Davis, Westinghouse, and Wagner. Two recitations and one laboratory period. Three credits. Laboratory fee \$1.

Winter term. Rec. Tu. Th. 8:00; lab. Fri. 2 to 4:30

Spring term. Rec. Tu. Th. 10:30; lab. Wed. 2 to 4:30

FINANCE AND BANKING

PROFESSOR HENDRICKS

ASSISTANT PROFESSOR BROOKE

1. **MONEY.** A general survey of the laws and forms of money and credit; the money question; the money market; experience and legislation of recent times. Fall term. Three credits.

Daily, 9:40

2. **BANKING.** History and theory of banking in the United States and foreign countries. foreign exchanges. Three hours. Winter term. Three credits.

Daily, 9:40

3. **PUBLIC FINANCE.** The principles of public expenditures, revenues, and administration. Three credits.

(Not given in 1917-18).

4. **TAXATION.** The methods of federal and state taxation, including the customs and internal revenue duties; income, business, inheritance, general property, and corporation taxes. Three credits.

(Not given in 1917-18).

5. **CORPORATION FINANCE.** Corporate incomes, expenditures, debts, and administration; the laws governing the growth of corporations, and the relation to the State. Fall term. Three credits.

Daily, 11:20

6. FINANCIAL AND ECONOMIC HISTORY OF THE UNITED STATES. The principal events of our political life and their economic causation; the history of the tariff, money and banking, agriculture, manufacturing, etc. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 12:10

7. RAILWAY TRANSPORTATION AND PRACTICE. The development of the railway system, railway finance, railway statistics; the theory of rates, methods of public control in Europe, Australia, and America. Spring term. Three credits.

Daily, 9:40

8. INDUSTRIAL EFFICIENCY. A study in modern business management, as an introduction to the work in efficiency engineering. Two credits.

(Not given in 1917-18).

9. INDUSTRIAL EFFICIENCY. A study of the executive and his work in the field of modern business. Spring term. Three credits.

Daily, 8:50

FOODS AND DIETETICS

PROFESSOR RAVENHILL

PROFESSOR LIZZIE MCKAY HILL

ASSISTANT PROFESSOR COX

a. ELEMENTARY COOKING. Two laboratory periods thruout the year. Four credits.

Tu. Th. 2 to 4:30

1. PREPARATION OF FOODS AND FOOD SUPPLY. Cookery and food stuffs: general principles of food preparation, methods of cooking, effect of heat upon foods; food selection, composition, food values and cost, and the preparation and serving of simple meals. Prerequisite, or parallel, Chem-

istry 1. Two lectures and one laboratory period thruout the year. Six credits.

Lec. Wed. Fri. 8:50; lab. Wed. Fri. 2 to 4:30

Assistant Professor Cox

1a. A study of the composition of foods and the fundamental principles of nutrition. A course designed primarily for students who have had at least two years of high school work in foods. Two lectures a week thruout the year. Four credits.

Tu. Th. 9:40

Assistant Professor Cox

2. FOOD ECONOMICS. The function and nutritive values of foods, cost of food in relation to the family budget, practical results of the "pure food" laws. The preparation of meals combining foods according to dietetic, aesthetic, and economic standards. Two lectures and one laboratory period thruout the year. Six credits. Prerequisites, Foods 1 and Chemistry 2.

Lec. Wed. Fri. 9:40; lab. Tu. Th. 2 to 4:30

Professor Hill

3. DIETETICS AND NUTRITION. The principles of human nutrition applied to various diets; metabolism of food stuffs, dietaries and their construction, the relation of diet to health, and the economy of foods. Prerequisites, Foods 2, and physiology or physiological chemistry. Two lectures and one laboratory period thruout the year. Six credits.

Lec. Tu. Th. 11:20; lab. Th. 2 to 4:30

Assistant Professor Cox

5. PATHOLOGICAL NUTRITION. The fundamental principles of human nutrition applied to dietaries for the sick and convalescent. The planning of special menus to meet requirements of hospital patients. Prerequisite, Foods 3. Six hours. Fall term. Two credits.

Mon. Wed. Fri. 10:30 to 12:10

Professor Ravenhill

6. DIET FOR CHILDREN. The food requirements from birth to adolescence. Prerequisite, Foods 3. Six hours. Winter term. Two credits.

Mon. Wed. Fri. 10:30 to 12:10

Professor Ravenhill

9. SEMINAR. For advanced students and graduates. Critical study of current literature on chemistry and economy of foods and nutrition. Spring term. Two credits.

Mon. Wed. Fri. 10:30

GEOLOGY

PROFESSOR WILLIAM PETERSON

1. PHYSIOGRAPHY. Special emphasis on the inter-mountain region. Winter term. Three credits.

Daily, 11:20

2. GENERAL GEOLOGY. Dynamic, struictional, and historical, geology. The changes the earth's surface is now undergoing and the forces which produce them, as a means of interpreting the past. Laboratory study of the common rocks and rock-forming minerals, with special stress on the soil product resulting from rock disintegration. A careful study of the geological development of the North American continent. Field trips to points during fall and spring with written reports. Prerequisites, Chemistry 1, Zoology 2.

Three hours thruout the year. Six credits.

Sec. 1. Mon. Wed. Fri. 8:00

Sec. 2. Daily, Winter and Spring terms, 8:50

3. ECONOMIC GEOLOGY. The first part of the course will deal with the non-metals with special emphasis on mineral fertilizers; the second part, with metals, their origin and economic uses. Either term may be taken without the other. Prerequisite, Geology 2. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 9:40

4. MINERALOGY. Individual laboratory work in blow-

pipe analysis and determinative mineralogy. Prerequisite, Chemistry 1. One recitation and two laboratory periods. Six credits. Laboratory fee \$2. Students may start any time.

Lec. Tu. 9:40; lab. Tu. Th. 2 to 4:30

5. GEOLOGY OF GROUND WATER. A study of structure to determine the cause of springs, artesian wells, etc. Structural characteristics that will yield water, either thru tunneling or boring. Prerequisites, Geology 1 or 2, and Physics 1. Five hours. Winter term. Three credits.

Daily, 10:20

6. ADVANCED PHYSIOGRAPHY. For students who wish a more complete knowledge of physiographic features and processes than can be given in Geology 1. Prerequisite, Geology 2. Three hours. Fall term. Two credits.

Daily, 11:20

7. PETROLOGY. The origin and formation of the different kinds of igneous rocks and methods for the determination of the minerals which compose them. Prerequisites, Geology 2 and 4, Chemistry 1. Lectures, reading, and laboratory work. Either term. Credit to be arranged.

8. Field methods necessary in mapping the detailed geology of an assigned area. Time and credit to be arranged.

9. LOCAL GEOLOGY. The relief of Utah and bordering states. Relation of the country rock and physical features to productive land areas. One piece of relief modeling is required from each student. Prerequisite, Geology 2. Three hours, two or three credits. Laboratory to be arranged. Fall or Spring terms.

Mon. Wed. Fri. 11:20

10. GEOLOGY. Relief modeling, methods by which any topographic map may be converted into a true relief model, including either the geology or detailed geography as the student may select. Two or three credits, either term. Laboratory fee, \$2.

HISTORY

PROFESSOR DAINES

ASSISTANT PROFESSOR ROBINSON

a. ANCIENT AND MEDIEVAL CIVILIZATION. A general survey, for the practical course student. Fall term. Two credits.

Mon. Wed. Fri. 10:30

Assistant Professor Robinson

b. MODERN CIVILIZATION. A continuation of course a. Winter term. Two credits.

Mon. Wed. Fri. 10:30

Assistant Professor Robinson

c. AGRICULTURAL DEVELOPMENT IN ITS RELATION TO HUMAN PROGRESS. Spring term. Two credits.

Mon. Wed. Fri. 10:30

Assistant Professor Robinson

1. MILITARY HISTORY OF THE UNITED STATES. The causes of, the preparation for, and the carrying on of the wars of the United States. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 11:20

Professor Daines

3a. ENGLISH HISTORY. The political and social history of Great Britain to 1689. Fall term. Two credits.

Mon. Wed. Fri. 9:40

Assistant Professor Robinson

3b. ENGLISH HISTORY. A continuation of 3a, from 1689 to the present. Winter term. Two credits.

Mon. Wed. Fri. 9:40

Assistant Professor Robinson

3c. ENGLISH HISTORY. The development of the English Constitution. Spring term. Two credits.

Mon. Wed. Fri. 9:40

Assistant Professor Robinson

4a. MODERN EUROPE. The political and social history of Modern Europe to 1815. Five hours. Fall term. Three credits.

Daily, 10:30

Professor Daines

4b. MODERN EUROPE. A continuation of course 4a. Five hours. Winter term. Three credits.

Daily, 10:30

Professor Daines

5. THE AMERICAN WEST. A history of the Rocky Mountain and Pacific Coast regions of the United States. Five hours. Fall term. Three credits.

Daily, 8:50

Professor Daines

6a. ANCIENT HISTORY. History of Greece, with a short survey of more ancient nations. Five hours.

6b. ANCIENT HISTORY. History of Rome. Five hours.

9. HISTORY OF SCIENCE. The development of the scientific spirit and thought, and the effect of science on human progress. Five hours. Spring term. Three credits.

Daily, 10:30

Professor Daines

10. HISTORY OF ART. Lantern-slide lectures on the evolution and development of painting, sculpture, and architecture. Three lectures. Winter term. Two credits.

Mon. Wed. Fri. 12:10 to 1

Professor Powell

HISTORY II (a). History of domestic architecture. Development of the home with special attention to English and American homes. Three lectures. Winter term.

Mon. Wed. Fri. 10:30 to 11:20

Professor Fletcher

HISTORY II (b). Period furniture and historic styles. History of interior decoration and furniture. Three lectures. Spring term.

Mon. Wed. Fri. 10:30 to 11:20

Professor Fletcher

HOME CONSTRUCTION AND SANITATION

PROFESSOR RAVENHILL

1. SANITATION. Scientific principles and practices conducive to the maintenance of healthful conditions and their expression in house and environment. Prerequisite, or parallel, Bacteriology 2. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 10:30

Professor Greaves

2. MOTHERCRAFT. The care and feeding of infants. Nutritional disturbances in children. Diagnosis and treatment of diseases of children and practical experience in nursing. Two lectures and three hours' laboratory a week. Fall and Winter terms. Four credits.

Tu. Th. 11:20

Professor Porter

3. HOUSE CONSTRUCTION. The study of the structure and the development of the house. (See Rural Architecture.) Three lectures. Fall term.

Mon. Wed. Fri. 12:10

Professor R. B. West

The planning of modern houses and their surroundings. Special attention is given to convenience of arrangement, economy of space, plumbing and water supply and labor saving problems in and about the house. Five hours' laboratory, Fall term; ten hours' laboratory, Winter and Spring terms. Six credits.

Laboratory daily, 10:30

(Winter and Spring terms, 10:30 to 12:10)

Professor Powell

4. HOUSEHOLD ADMINISTRATION. The meaning of home making and home activities, their relation to the industrial world and to society at large. Standards of living, income and expenditures; savings, service and management. Pre-

requisite, Economics 2. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 8:50

Professor Ravenhill

5. HOME LAUNDERING. This course includes a study of equipment for the home laundry; laundering processes; methods of cleaning silks, woolens, linen and cotton; special precautions in handling colored materials, laces and fine materials; the removal of stains. Prerequisites, Chemistry 1 and 2, and Bacteriology 1. Two laboratory periods. Fall term. One credit.

(Not given in 1917-18)

6. SURVEY. A study of the practical problems in the supervision and management of home economics departments in educational institutions. Two lectures thruout the year. Four credits.

Tu. Th. 9:40

Professor Ravenhill

7. HOUSE FURNISHING. The study of wall finishes and decorations, wood finishes, floors and floor coverings, draperies, furniture and furnishings, pictures, bric-a-brac, flowers, etc.

The decoration and furnishing of rooms will be planned and shopping tours for the selection of furnishings will be made. The assembling of the decorations and furnishings of several rooms will be made by the students under the direction of the instructor. Prerequisite, Art 22. Two hours daily. Spring term. Two credits.

8:50 to 10:30

Professor Powell

8. FAMILY LIFE IN THE HOME. The relation of the home to its occupants. Eugenic influences. Antenatal responsibilities of parents. The process of child development and phases of growth as affected by home conditions. The special problems of adolescence. The adaptation of home methods to varying types and temperaments. Parental duties and privileges as conservers of health in the home; purchasing agents; chief executive officers; control-

lers of home finances; regulators of home and social activities and ideals; upholders of legal obligations. No prerequisites. Two hours each week thruout the year. Four credits.

Tu. Th. 10:30

Professor Ravenhill

9. RELATION OF HOME ECONOMICS TO HUMAN EFFICIENCY. Racial, geographical, historical and family influences as related to human efficiency. Nutritional influences, such as sleep, food, warmth, etc., personal factors, such as posture, habits, exercise, occupation, etc. Domestic, economic, industrial and civic influences on human life. Reasons for increasing attention to home economics as a factor in efficiency; its scope and far reaching influence. No prerequisites. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 10:30

Professor Ravenhill

HORTICULTURE

PROFESSOR MERRILL

MR. TAYLOR

MR. HANSEN

MR. _____

1. GENERAL HORTICULTURE. Study of the various phases of horticulture from the viewpoint of correlation with general or specialized farming. Intended primarily for agricultural students not specializing in horticulture. Three lectures and two laboratory periods. Spring term. Three credits. Laboratory fee \$1.

Lec. Mon. Wed. Fri. 9:40; lab. Tu. Th. 2 to 4:30

Professor Merrill

2. POMOLOGY. Principles underlying home and commercial fruit growing. Three lectures. Fall term. Two credits.

Lec. Mon. Wed. Fri. 10:30

3. PLANT PROPAGATION. Methods in horticultural technique. Studies of budding, grafting, reproduction by seeds and vegetative parts, and nursery practice. One lecture and two laboratory periods. Winter term. Two credits. Laboratory fee \$1.

Lec. Fri. 12:10; lab. Mon. Wed. 2 to 4:30

4. PRACTICAL POMOLOGY. Practical problems pertaining to orchard practice,—pruning, frost injury and prevention, planting, spraying, thinning, fertilizing, and growth of cover crops. Prerequisite, Horticulture 2. One lecture and two laboratory periods. Spring term. Two credits. Laboratory fee \$1.

Lec. Fri. 12:10; lab. Sat. 8 to 1

5. OLERICULTURE. Principles and practices underlying production of vegetable crops, and methods of handling for home and commercial purposes. Study of varieties and their adaptations. Two lectures and one laboratory period. Fall term. Two credits. Laboratory fee \$1.

Lec. Tu. Th. 10:30; lab. Mon. 2 to 4:30

6. PLANTS UNDER GLASS. Vegetable forcing. Crops grown in cold frames, hot-beds, and greenhouses. Soil-composting and managing. Prerequisite, Horticulture 5. One lecture and two laboratory periods. Winter term. Two credits. Laboratory fee \$1.

Lec. Wed. 12:10; lab. Tu. Th. 2 to 4:30

7. SMALL FRUITS. Propagating, cultivating, pruning, harvesting, and marketing of berries, currants, and grapes. History and characteristics of varieties. Two lectures and one laboratory period. Spring term. Two credits. Laboratory fee \$1.

Lec. Tu. Th. 9:40; lab. Mon. 2 to 4:30

8. LANDSCAPE GARDENING. Principles underlying home and city beautification. Preparation of ground, selection and grouping of ornamental plants, care of lawns, designing of plans. Prerequisite, Botany 2. Two lectures

and one laboratory period. Fall term. Two credits. Laboratory fee \$1.

Lec. Mon. Wed. 11:20; lab. Wed. 2 to 4:30

9. LANDSCAPE DESIGN. Advanced practice in landscape art. Prerequisite, Horticulture 8. One lecture and two laboratory periods. Winter term. Two credits. Laboratory fee \$1.

(Not given in 1917-18).

10. HOME FLORICULTURE. Propagation and care of plants useful for home decoration. Exterior plantings, flower beds, and borders. Designed for students in home economics as well as for horticultural students. Two lectures and one laboratory period. Spring term. Two credits. Laboratory fee \$1.

Lec. Tu. Th. 10:30; lab. Wed. Fri. 2 to 4:30

11. SYSTEMATIC POMOLOGY. Variety characteristics and adaptations. Fruit scoring and preparation for judging fruit exhibits. Prerequisites, Horticulture 2 and 4. One lecture and two laboratory periods. Fall term. Two credits. Laboratory fee \$1.

Lec. Fri. 12:10; lab. Tu. Th. 2 to 4:30

12. PLANT BREEDING. Fundamentals of Mendelism, genetics, and biometry. Study of hereditary characters and environmental variations and practical plant breeding work. Prerequisites, Horticulture 3 and Botany 2. Three lectures and two laboratory periods. Spring term. Three credits. Laboratory fee \$1.

Lec. Mon. Wed. Fri. 11:20; lab. Wed. Fri. 2 to 4:30

Professor Merrill

13. HORTICULTURAL BY-PRODUCTS. Utilization of waste materials. Biochemistry of processes in plant products. Ripening, storage, decay, fermentation, canning operations. Prerequisites, Horticulture 2, 5, and 7, Botany 4, Chemistry 3, and Bacteriology 1. Two lectures and two laboratory periods. Fall term. Laboratory fee \$2.

(Not given in 1917-18).

14. HISTORY OF CULTIVATED PLANTS. Historical consideration of wild plants in nature from earliest times and their gradual adaptation to the uses of man. Three lectures. Winter term. Two credits.

Lec. Mon. Wed. Fri. 11:20

Professor Merrill

15. EXPERIMENTAL HORTICULTURE. Preparation for research in horticulture. History and tendencies of horticultural research thruout the world. Critical study of bulletins, theses, and research publications. Extensive reading and reports. Reading knowledge of French and German desirable. Prerequisites, Horticulture 2, 3, 4, 5, 6, 7, 11, and 12, Botany 2 and 4, Chemistry 3, and Entomology 1. Five lectures. Spring term. Three credits. (Time to be arranged).

16. SEMINAR. Review of current literature. For advanced students. One hour a week each term. Two credits. (Time to be arranged.)

17. RESEARCH. For students with adequate preparation. Time and credit to be arranged.

LIBRARY ECONOMY

MISS HATTIE SMITH

1. GENERAL REFERENCE. Classification and arrangement of books; the card catalog; reference books. Text, "List of Reference Books in the Utah Agricultural College Library." One hour thruout the year. Two credits.

Wed. 10:10

Miss Smith

2. BIBLIOGRAPHY. Agricultural, scientific, and technical literature of learned societies, special periodicals, and government publications. Lectures by professors; each student compiles a bibliography. One hour thruout the year. Two credits.

(Not given in 1917-18)

MATHEMATICS

PROFESSOR SAXER

ASSOCIATE PROFESSOR HUMPHERYS

a. VOCATIONAL ALGEBRA. Primarily for Practical course students. Not accepted as a substitute for high school algebra. Fall term. Three credits.

Daily, 8:50

Associate Professor Humpherys

b. PLANE GEOMETRY. Winter and Spring terms. Six credits.

Daily, 8:50

Associate Professor Humpherys

2. ELEMENTARY ANALYSIS. Elementary graphical methods for presenting facts. Relation of the graph to algebra. Graphical and algebraical solution of triangles. Three hours thruout the year. Six credits. Class limited to 25 students during the year 1917-18. Fee \$1. No text book required.

Mon. Wed. Fri. 12:10

Professor Saxer

4. SOLID GEOMETRY. Spring term. Three credits.

Daily, 9:40

Professor Saxer

5. COLLEGE ALGEBRA. Fall term. Three credits.

Daily, 10:30

Professor Saxer

6. TRIGONOMETRY. Winter term. Three credits. Prerequisite, Mathematics 5.

Daily, 10:30

Professor Saxer

7. ANALYTIC GEOMETRY AND CALCULUS. Thruout the year. Ten credits. Prerequisite, Mathematics 6.

Daily, 8:00

Professor Saxer

8. DIFFERENTIAL EQUATIONS. Two hours thruout the year. Four credits. Prerequisite, Mathematics 7.

Tu. Th. 11:20

Professor Saxer

10. GENERAL ASTRONOMY. Spring term. Three credits.
Prerequisite, Physics 1.

Daily, 10:30

Professor Saxer

12. MATHEMATICAL THEORY OF INVESTMENT. Fall term. Three credits. Prerequisite, Mathematics 2 or 5.

Daily, 9:40

Professor Saxer

w. ARITHMETIC. For Winter course students. Winter term. Three credits.

Daily, 9:40

Professor Saxer

MECHANIC ARTS

PROFESSOR R. B. WEST

ASSOCIATE PROFESSOR HANSEN

ASSISTANT PROFESSOR PULLEY

ASSISTANT PROFESSOR NEWAY

MR. SWENSON

A deposit of \$3 is required for each shop course.

FORGING AND GENERAL BLACKSMITHING

ASSISTANT PROFESSOR NEWAY

All courses start September 10 and December 3. During the Fall and Spring terms the shop is open daily from 8 to 10:30 a. m., and from 2 to 4:30 p. m. During the Winter term the shop is open daily from 8 to 4:30.

FORGE PRACTICE. a, b, c. Forging, welding, tempering, tool making and other operations essential to forge shop work. Three periods daily, each term. Each course, three credits. Laboratory fee \$1.65 each course.

Sec. 1. A. M. Sec. 2. P. M.

d. ADVANCED SHORT COURSE. For students who have had some work but cannot fit the regular schedule. Work selected from the regular courses. Time and credits to be arranged with the instructor.

SHORT COURSE, e. Select work from Forge Practice a, for students who cannot spend each day in the shop; especially suitable for agricultural and engineering students or for any one wishing to use blacksmith tools. Ten periods a week, each term. Two credits. Laboratory fee \$1.

FORGE SHOP OPERATIONS, 1, 2, 3. Plow work, spring work, axle and tire setting, horseshoeing, brazing and acetylene welding. Prerequisite, Forge Practice. Three periods daily, each term. Each course, three credits. Laboratory fee \$1.65 each course.

ADVANCED SHOP PRACTICE, 4, 5, 6. In this course the student may emphasize any line of blacksmith work that suits his particular needs. Prerequisite, Forge Shop Operations. Three periods daily, each term. Each course, three credits. Laboratory fee \$1.65 each course.

CARRIAGE AND AUTOMOBILE WORK, 7, 8, 9. Joints and constructions used in carriage and automobile bodies; the building of an approved vehicle or farm implement. Prerequisite, Forge Shop Operations. Three periods daily, each term. Each course, three credits. Laboratory fee \$1.65 each course.

FOUNDRY. Operated for demonstration and the making of castings. If a sufficient number of students apply, the foundry will run for instructional purposes also.

MACHINE AND AUTOMOBILE WORK

ASSISTANT PROFESSOR PULLEY

In the following courses due consideration is given to: the materials used in the construction of machinery, the methods of executing the work properly, and problems relating to the processes involved.

c. SHORT COURSE. Exercises selected from Courses 1, 2, and 3. Two laboratory periods thruout the year. Three credits. Laboratory fee, \$1.65.

Tu. Th. 2 to 4:30

d. **ADVANCED SHORT COURSE.** Work selected from Courses 3, 4, 5, etc. Three laboratory periods thruout the year. Six credits. Laboratory fee, \$3.30.

Mon. Wed. Fri. 2 to 4:30

A deposit of \$3 a year is required.

1. **BENCH AND VISE.** Filing, fitting, drilling, valve grinding, spring wrapping, tap and die work, soldering. Fall term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

2. **BENCH, PLANER AND SHAPER.** Chipping, filing, babbiting and scraping bearings, tube vulcanizing, hand turning, simple planer and shaper work. Winter term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

3. **LATHE AND AUTO REPAIR.** Straight and taper turning, simple auto parts and repairs, battery charging and work with ignition starting and lighting apparatus. Prerequisite, Course 2. Spring term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

4. **LATHE AND AUTO REPAIR.** Advanced lathe work, eccentrics, screw threads, diagnosis of auto troubles on the road, adjustment and repair. Prerequisite, Course 3. Fall term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

5. **LATHE AND MILLING MACHINE.** Making bolts, screws, keyseats, gears, piston pins and rings, jack screws. Prerequisite, Course 4. Winter term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

6. **AUTO REPAIR.** Taking down, repairing and re-assembling, tire vulcanizing, battery work. Prerequisite, Course 5. Spring term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

7. MILLING AND GRINDING. Bevel and spiral gears, cams, grinding on universal cutter grinder. Prerequisite, Course 5. Fall term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

8. TOOL MAKING. Mandrels, simple milling cutters, taps and dies. Prerequisite, Course 5, and a working knowledge of steel. Winter term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

9. TOOL MAKING AND PRESS WORK. Twist drills, jigs and fixtures, sheet metal work. Prerequisite, Course 8. Spring term. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

10. MACHINE CONSTRUCTION. Small steam and gasoline engines are representative of this work. Prerequisite, Course 9. Three credits. Laboratory fee, \$1.65.

Daily, 2 to 4:30

11. MACHINE CONSTRUCTION. (Continued). Credits, fees, and hours same as for Course 10.

12. MACHINE CONSTRUCTION AND MANUFACTURING. Factory methods and interchangeable manufacture. Credits, fees and hours same as for Course 10.

Winter Courses. Any of above courses, for which the preparation is adequate, may be taken in the Winter Courses. Laboratory periods daily from 8 to 10:30.

MECHANICAL DRAWING

PROFESSOR POWELL

PROFESSOR RAY B. WEST

1. DRAWING FOR BUILDERS. An elementary course in drawing with problems which are of special use to the practical builder. Simple line drawings, geometric constructions, straight line projection and free hand perspective. Fall and Winter terms. Two credits.

Daily, 10:30 to 12:10

Professor Powell

2. STRUCTURAL DETAILS. Drawing of shop exercises. Freehand sketching and rendering in straight line projection. Fall and Winter terms. Two credits. Prerequisite, Drawing 1.

Daily, 10:30 to 12:10

Professor Powell

3. BUILDING DETAILS. Drawing of walls, windows, roof details, and furniture. For students specializing in mechanic arts. The drawing will be arranged to meet the requirements of the different lines of work that the student may be taking. Winter and Spring terms. Two credits. Prerequisite, Drawing 2.

Daily, 10:30 to 12:10

Professor Powell

4. ARCHITECTURAL DRAWING. Drawing of simple plans, elevations, and details. Fall and Spring terms. Two credits. Prerequisite, Drawing 2.

Daily, 10:30 to 12:10

Professor Powell

5. Drawing of plans, elevations, sections and details. Drawing of plans for grounds, gardens, and outbuildings. Winter and Spring terms. Two credits. Prerequisite, Drawing 4.

Daily, 10:30 to 12:10

Professor Powell

6. PERSPECTIVE. Pencil, crayon, pen, and wash drawings and rendering in color. Spring term. Two credits. Prerequisite, Drawing 5.

Daily, 10:30 to 12:10

Professor Powell

7. ENGINEERING DRAWING. The drawing of engineering structures in orthographic projection. This course also includes machine drawing for those doing machine work. Prerequisites, Mechanical Drawing 1 and 2. Each term. Two credits.

Daily, 10:30 to 12:10

Professor R. B. West

8. AGRICULTURAL DRAWING. Exercises in orthographic projection specially applicable to agricultural work. Prerequisites, Mechanical Drawing 1 and 2. Each term. Two credits.

Daily, 10:30 to 12:10

Professor R. B. West.

9. DESCRIPTIVE GEOMETRY. Of practical value to the mechanic and engineer in reading working drawings and in solving graphical problems. The point, line, plane, and simple solid are studied. Prerequisites, Mechanical Drawing 1 and 2. Each term. Two credits.

Daily, 10:30 to 12:10

Professor R. B. West.

TECHNOLOGY OF MECHANIC ARTS

PROFESSOR R. B. WEST

ASSOCIATE PROFESSOR HANSEN

ASSISTANT PROFESSOR PULLEY

ASSISTANT PROFESSOR NEWHEY

1. A SURVEY OF THE TRADES. History and development; methods of learning a trade; apprenticeship and trade school; problems of industrial development and factory life. Fall term. Two credits.

(Not given in 1917-18).

Assistant Professor Newhey

2. MECHANISM. The transmission of motion by links, levers, cams, belts, chains, and gears. Practical applications to machines and automobiles. Prerequisite, Mechanical Drawing a or geometry. Fall term. Two credits.

Mon. Wed. Fri. 8:50

Assistant Professor Pulley

3. AUTOMOBILES. The construction, operation and care. Types, engine details, starting, lighting, and ignition systems, carburetors, trouble location, driving practice.

Fall term. Repeated Spring term. One hour laboratory work. Three credits.

Daily, 10:30

Assistant Professor Pulley

3a. LABORATORY. Practice is given in driving, studying the purpose, operation and adjustment of the various car components, valve timing, carburetors, starting, lighting and ignition systems, taking down and re-assembling. Fee. Winter term.

Fri. 10:30; lab. Wed. or Fri. 12:10

Assistant Professor Pulley

4. WOOD FINISHING. Paints, pigments, oils, and their manufacture. Water, oil, and spirit stains; wash finish. Varnish,—kinds and their preparation; rubbing and hand polish. Three lectures a week, one term. Two credits. (May be taken any term, if sufficient students apply.)

Associate Professor Hansen

5. HOUSE BUILDING AND CONTRACTING. Methods of construction: the frame, two-brick, three-brick, stucco, shingle, cement block, and stuccoed hollow tile; comparative cost and economy of each; interior finishing. Five hours. Winter and Spring terms.

Daily, 10:30

See Rural Architecture 9.

Professor R. B. West

6. SHOP PROBLEMS. The application of mathematics to the trades; practical methods of estimating quantities of material, calculating costs, and finding speeds of machines; the use of geometry in the trades. Fall or Winter terms. Three credits.

Daily, 10:30 to 11:20

Assistant Professor Newey

7. MATERIALS OF CONSTRUCTION. The chemistry of iron, steel, alloys, etc., and their special use in machine parts; strength, composition, and proper use of woods, plaster, glass, glue, paints, cement, brick, etc., in building. Five hours. Fall term. Three credits.

Daily, 10:30

Professor R. B. West

8. AVIATION AND AERONAUTICS. An elementary course dealing with aero-engines and the aeroplane. Spring term. Two credits.

Mon. Wed. Fri. 8:50

Assistant Professor Pulley

WOODWORK AND HOUSEBUILDING

ASSOCIATE PROFESSOR HANSEN

MR. SWENSON

MR. HUGHES

FIRST YEAR

CARPENTRY, a. b. c. Fundamentals. Scarfing, mortising, dovetailing, and jointing; panels, sashes, doors, and cupboards. Thoro practice in tool sharpening, and proper handling of tools are emphasized. Three periods daily thruout the year. Nine credits.

Associate Professor Hansen

CARPENTRY d. Advanced Short Course. For students who have had some work and want to continue without taking the regular courses. Time and credits to be arranged with the instructor.

Associate Professor Hansen

CARPENTRY e. Short Courses for Beginners. For students who cannot spend every day in the shop; suitable for any who wish to do farm woodwork. Nine periods a week. Two credits. (May be taken any term.)

Associate Professor Hansen

SECOND YEAR

CARPENTRY 1, 2, 3. Machine Work. The use of wood-working machinery, building a modern work bench and tool chest; also elementary and advanced wood turning. Prerequisite, Carpentry c. Three periods daily thruout the year. Nine credits.

Mr. Swenson

THIRD YEAR

CARPENTRY 4, 5, 6. Cabinet Making and Housebuilding. Furniture in fir and oak, staining, fuming, and finishing; framing, roofing, door and window frames. Prerequisite, Carpentry 3. Three periods daily thruout the year. Nine credits.

Mr. Swenson

FOURTH YEAR

CARPENTRY 7, 8, 9. Fancy Furniture. Mahogany and other expensive wood are used; veneering, inlaying, and hand polishing. Prerequisite, Carpentry 6. Three periods daily thruout the year. Nine credits.

Mr. Swenson

CARPENTRY 10. Wood Carving. Simple articles in straight and curved lines, simple conventional ornaments, and natural foliage. Time and credits to be arranged with the instructor.

Mr. Hughes

CARPENTRY 11. Pattern Making. Kind of work and credit to be arranged with the instructor.

Mr. Swenson

Shops open all day

1st Section, 8:00—10:30

2nd Section, 10:30— 1:30

3rd Section, 2:00— 4:30

(Beginners and advanced students may take any section.)

METHODS IN EXPERIMENTATION AND

EXTENSION

The purpose of the course in extension methods is to acquaint the advanced students, who may contemplate entering such activities, with the rapidly growing work of the Extension Division. The course, furthermore, is designed to act as a fitting school for practically trained

agriculturists or home workers who plan to enter Extension work but whose knowledge is not organized according to college standards. The course will act as a cementing force among Extension workers themselves in that it will effect on their part a careful arrangement of their material and a careful comparison of their work with related work in the Extension Division. It will be planned to have the lecture material, in connection with the various subjects, given during different weeks and the demonstrations of certain different subjects grouped during a few weeks in order to enable County Agents and others to take advantage of them.

As an example of the nature of material presented under these various subjects, the following is given:

History and Organization of Extension Work, six lectures:

1. History of Extension Work
2. Purpose and Personnel
3. Relation to Interior Instruction, Experimentation, and Federal Departments
4. The Plan of Organization
5. Reports, Records and Publications
6. Machinery of Instruction

Extension Work in Animal Husbandry, six lectures:

1. Essential and Unessential Facts
2. Essential and Unessential Facts (continued)
3. Method of Presentation
4. Method of Presentation (continued)
5. Demonstration (on Cache Valley Farm)
6. Demonstration (on Cache Valley Farm)

COURSES

1a. Lectures and demonstrations in the methods of instruction in Agricultural Extension work. Two lectures a week thruout the year.

Wed. Fri. 11:50

Schedule of subject matter and lectures:

History and Organization of Extension Work....	6 periods
Farmers' Institutes and Schools.....	3 "
Agricultural Economics.....	9 "
Agricultural Engineering.....	3 "
Animal Husbandry.....	6 "
Dairying.....	4 "
Dry-Farming.....	4 "
Farm Management.....	6 "
Horticulture.....	3 "
Irrigation and Drainage.....	6 "
Seed Breeding and General Agronomy.....	9 "
Soils.....	2 "
Veterinary Science.....	3 "
The County Agent.....	3 "
Boys' Club Work.....	6 "
High School Club Work.....	3 "
Correspondence Extension Work.....	3 "
The Preparation of Exhibits.....	2 "
Review and Summary.....	3 "

1b. Lectures and demonstrations in methods of instruction in Home Economics extension. Two lectures a week thruout the year. Four credits.

Wed. Fri. 11:50

Schedule:

History of Extension.....	1 periods
Forms of Extension.....	1 "
Institutes and Schools.....	8 "
Home Demonstration.....	16 "
Girls' Club Work.....	8 "
Women's Organizations.....	2 "
Correspondence Courses.....	2 "
Fairs and Exhibits.....	2 "
The Home Laundry.....	2 "
Buttermaking.....	4 "
Floriculture.....	4 "

Poultry Raising.....	4 periods
Public Speaking.....	6 “

Laboratory:

Three months of field work as follows:

One month during junior year in Girls' club work

One month during senior year in Short course work

One month during senior year in Home demonstration work

The last may be taken during the summer months

2. METHODS IN EXPERIMENTATION

a. Methods and principles of research as applied to agriculture. Winter term.

b. Experimental work in home problems in bacteriology, infant feeding, household chemistry or working out of home equipments, or in any problems brought in from the field.

Care will be taken not to duplicate other courses and an effort will be made to utilize in actual practice material obtained in classroom and laboratories.

MILITARY SCIENCE AND TACTICS

CAPTAIN E. SANTACHI, JR., U. S. ARMY

Realizing the importance of an adequate force for the defense of the nation and the possibility of foreign aggression, the framers of the act creating land grant institutions most wisely demanded that all states availing themselves of the advantages thereunto appertaining maintain a department of instruction in military science and tactics. The law provides that this instruction be under the supervision of the War Department; for this purpose an officer of the regular army is maintained at the College by the United States.

The authorities of the State of Utah and of the Agricul-

tural College, in hearty accord with the sentiments of the National Government on this matter, adhere strictly to the provisions of the law. In 1917-18 *all able-bodied male undergraduates will be required to drill. The prescribed three-year-course must be completed for graduation.*

The object of the course is to inculcate habits of obedience, regularity, punctuality and neatness, to promote a rational physical development, and to give instruction in the use of weapons and in the art of war which makes a man an efficient citizen, both in war and in peace.

The satisfactory completion of the practical and theoretical work prescribed for any one school term entitles the student to two semester hours' credit towards graduation.

The War Department requires that all students appear in uniform while taking drill and receiving instruction in military science. The College has adopted a neat and serviceable uniform which may be purchased thru the War Department at actual cost, fourteen dollars and fifty cents. Students must deposit the price of this uniform at the time of registration.

PRACTICAL INSTRUCTION

Infantry drill, field service, target practice, intrenching, and signalling; minor tactics and practical solution of field problems.

Mon. Wed. Fri. 1 to 2

THEORETICAL INSTRUCTION

School of the soldier, squad, and company; description and nomenclature of the rifle; theory of rifle firing. Supplementary lectures. Studies in minor tactics; map reading.

Sec. 1. Tu. Th. 8:50

Sec. 2. Tu. Th. 10:30

Sec. 3. Mon. Wed. 12:10

Sec. 4. Tu. Th. 2 to 2:50

MODERN LANGUAGES AND LATIN

PROFESSOR ARNOLD

FRENCH

1. FIRST YEAR FRENCH. Walther and Ballard's *Beginner's French* for grammar and conversation. About 400 pages of easy prose are read. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 10:30

2. SECOND YEAR FRENCH. Francois *French Composition* for grammatical review and writing in French; Lavisse's *Histoire de France* for conversation; translating works of nineteenth century authors. Prerequisite, French 1. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 11:20

3. Reading course of modern plays. One hour a week thruout the year. Prerequisite, two years of French. This course may be taken privately in the form of weekly reports. Two credits.

Tu. 10:30

4. French conversation. Games, dictation, and learning of a one act play. One hour a week thruout the year. Two credits.

Th. 10:30

Other hours may be arranged for French 3 or 4, if necessary.

GERMAN

1. FIRST YEAR GERMAN. Grammar, conversation, and reading of easy texts. Three hours thruout the year. Six credits.

Mon. Wed. Fri. 8:50

2. SECOND YEAR GERMAN. Allen's *German Composition*; games and conversation. Many texts rapidly read, from nineteenth century authors; one scientific text. Three hours thruout the year. Six credits.

3. SCIENTIFIC GERMAN. Rapid reading of scientific

texts during first half year with private reading in different subjects according to the course of each student. Specially recommended for students who have had two years' work in German in high school or college and are planning to do advanced work in agronomy, botany, or other sciences. Two hours thruout the year. Four credits.

Tu. Th. 9:40

4. Conversation and games including learning of plays. Especially recommended to students who have had two years of German in high school or college and who wish to continue the subject without giving much time to it. One hour, thruout the year. Two credits.

Tu. 11:20

5. Study of Goethe's *Faust*. Lectures and readings. Especially recommended to advanced students and returned missionaries who wish to do literary work. Prerequisite, two years of German. One hour thruout the year. Two credits.

Th. 11:20

SPANISH

SPANISH 1. Grammar, conversation and reading. Five times a week. Winter term. Three hours' credit.

Daily, 8:00

SPANISH 2. Business correspondence, reading and conversation. Three times a week. Spring term. Two hours' credit.

Mon. Wed. Fri. 8:00

LATIN

LATIN 1. Grammar and reading and study of English vocabulary. Two hours a week thruout the year.

(Not given in 1917-18)

LATIN 2. A course in Caesar and Cicero will be given if five students apply. Credits will depend on amount of work done. Hours to be arranged with instructor.

MUSIC

PROFESSOR THATCHER, *harmony, composition*

ASSOCIATE PROFESSOR JOHNSON, *piano, voice, choir*

ASSISTANT PROFESSOR SPICKER, *orchestra-conducting, appreciation, violin*

MR. ALEXANDER, *band, cornet, etc.*

Class work in music is free; a small laboratory fee is charged in some courses.

1. NOTATION—EAR TRAINING—SOLFEGGIO. The course reviews the ground work necessary for students desiring a knowledge of elementary music. All major and minor keys and scales, intervals, tendencies, cycle of keys and triads, melody writing and sight singing. Two recitations a week thruout year. Three credits.

Tu. Th. 11:20

Associate Professor Johnson

2. HISTORY AND APPRECIATION OF MUSIC. a. From text. b. Applied music in choir or band. (*N. B. A small laboratory fee is charged.*) Four hours thruout the year. Six credits.

Sec. 1. Mon. Wed. Fri. 1:00; sec. 2. Mon. Wed. Fri. 2:00

Assistant Professor Spicker

Can be taken without b. Three credits.

3. ELEMENTARY HARMONY. a. Melody writing. (Text used.) Three recitations a week; home study, eight hours as a minimum. (At least two years of piano study or its equivalent must precede this course.) b. Applied music: 1. individual work, home study, six hours at least; 2. ensemble, 2 hours of home study at least. Five or six hours thruout the year. Nine credits.

Mon. Wed. Fri. 12:10; lab. Tu. Th. 4:30

Professor Thatcher

Note—For Courses 4, 5 and 6, the home study increases over Course 3.

4. ADVANCED HARMONY AND ANALYSIS. a. Ear training, (Text used.) b. Applied music, individual and ensemble. Prerequisite, Music 3. Five or six hours thruout the year. Nine credits.

Professor Thatcher

5. COUNTERPOINT AND SMALL FORMS. a. (Text used.) b. Applied music, individual and ensemble. Prerequisite, Music 4. Five or six hours thruout the year. Nine credits.

Professor Thatcher

6. CANON AND FUGUE. a. Large forms. (Text used.) b. Applied music, individual and ensemble. Prerequisite, Music 5. Five or six hours thruout the year. Nine credits.

Professor Thatcher

COURSES FOR GRADUATES

7. INSTRUMENTATION. Four hours thruout the year. Six credits.

Assistant Professor Spicker

8. ORIGINAL COMPOSITION. a. Art songs, anthems, and cantata forms; small and large instrumental combinations,—piano-forte four-hands, trio, quartet, and orchestra. b. Ensemble (advanced). Prerequisite, Music 7. Four hours thruout the year. Six credits.

Professor Thatcher

9. BAND. Three credits.

Wed. Fri. 12:10

Mr. Alexander

Private work given to those wanting instruction on band instruments.

10. CHOIR. One credit each term. To furnish music for chapel exercises and special occasions. Three times a week.

Mon. Wed. Fri. 11:20

Associate Professor Johnson

11. ORCHESTRA.

Tu. Th. 4:30

Assistant Professor Spicker

12. U. A. C. GLEE CLUB. One credit for the year. An organization of men; membership is limited in number and is decided by competition. Meets three times a week. Special fee of one dollar a year is charged.

Associate Professor Johnson

13. LADIES' CHORUS. One credit for the year. Same rule applies to this organization as to the Glee Club.

Associate Professor Johnson

Both clubs will unite in presenting oratorios and operas each year.

14. PUBLIC SCHOOL MUSIC. (Ability to play and sing required—also a technical knowledge of music, including harmony, solfeggio, history and interpretation.)

The course deals with theory and methods of teaching, music supervision, class room demonstrations, child voice, conducting, institute work, yearly, monthly, and daily programs. Takes up all problems in music in the grades and high schools. (Extra tuition is charged.)

Associate Professor Johnson

RECITALS AND MUSICALS

Recitals are given once a month in which students and teachers take part.

PRIVATE INSTRUCTION

The student pays the teacher's fee.

15. PIANO. Pianoforte playing. One credit each term. The work for piano is outlined to suit the needs of each individual student. All work is thoro and methods of teaching standard. Facilities for ensemble piano playing are provided for in the College buildings.

Associate Professor Johnson

16. VOICE. One credit each term. A thoro and systematic course is given in voice training, including breath control, voice placing, tone production, development of voice, interpretation, etc. Songs adapted to the needs of the individual student.

Associate Professor Johnson

17. VIOLIN. Two years' study presupposed. First year, David or DeBeriot, Book II; easy solos. Second year, Kreutzer, 42 exercises, medium grade. Third year, Fiorilli studies; Rode, 24 exercises; Concertos Viotti, Rode. Fourth year, Rovelli, Vavinies, Mendelssohn, Bruch. Two credits.

Assistant Professor Spicker

18. ORCHESTRAL AND BAND INSTRUMENT. Corresponds as nearly as possible to courses of study on violin. (Must combine with study of the solo instrument, two years on piano.)

Assistant Professor Spicker

Students may enter the College orchestra, without taking any other music course. Two credits. The College orchestra furnishes all the dance playing, students receiving compensation.

PHYSICAL EDUCATION

PROFESSOR WATSON

PROFESSOR R. O. PORTER

ASSISTANT PROFESSOR JOHNSON

ASSISTANT PROFESSOR JENSON

The classes in physical education are arranged with a desire to give each student sufficient physical exercise to make him do his most efficient work mentally.

After careful physical examination work is prescribed to meet the need of each individual. Two hours of physical training on the gymnasium floor each week are required of all freshmen. These courses are open to other students who choose to elect them.

Adequate opportunity is afforded all students to take part in class games and contests. Inter class sports are open to all students who have never won a letter or who are not trying for the teams.

Athletic competition with colleges and universities in the State and Rocky Mountain Conference forms an inter-

esting part of the work. Individual skill in athletics is obtained only after hours of hard work and continued sacrifice. The promotion of honor and college spirit thru athletic games and meets constitutes an important feature of the department.

COURSES FOR MEN

1. FOOTBALL. Practice in football technique, equipment; theory of defensive and offensive play; study of rules, duties of officials, schedule making, and general preparation for coaching. Fall term. One-half credit.

Daily, 4:30

2. TRACK AND FIELD ATHLETICS. Instruction and practice; how to choose men for different events; track rules and duties of officials; theory of training for endurance, speed, skill, strength; problems of temperament, climate, traveling and professionalism. Spring term. One-half credit.

Daily, 4:30

3. BASKETBALL. Instruction and practice; history, principles and technique of the game; methods of training and coaching; study of rules and duties of officials. Winter term. One-half credit.

Daily, 4:30

4. BASEBALL. Instruction and practice. Spring term. One-half credit.

Daily, 4:30

5. GYMNASIUM WORK. Required of all freshmen. Swedish gymnastics, callisthenic drills and gymnasium games. Students taking the course must learn to swim before receiving credit. Fall, Winter, and Spring terms. One-half credit each term.

Tu. Th. 1:00

6. WRESTLING. Instruction and practice. Winter term. One-half credit.

Daily, 4:30

7. SWIMMING. Instruction and practice. Fall, Winter, and Spring terms. One credit.

Tu. Th. Sat. 4:30

8. FIRST AID TO THE INJURED. Treatment of emergencies and accidents in the home, on the street, on the athletic field; bandaging and transporting of the wounded. Fall term. Two credits.

Wed. Fri. 12:10

PHYSICAL EDUCATION FOR WOMEN

The U. A. C., by vote of the Board of Trustees, has adopted uniform dress for College girls. Altho the wearing of this dress is not compulsory, it is strongly recommended by the Governing Board as a measure of economy and appropriateness.

The department is established primarily for the physical betterment of the women of the institution. It strives to develop such physical habits as make for vigor and efficiency and counteract the sedentary life of the student.

PHYSICAL EDUCATION 11. Practical gymnastics. Designed to furnish activity which will overcome faulty posture and secure good motor control. The course consists of lectures in hygiene, general gymnastics, folk-dancing, games, swimming, and cross-country running. Three credits. Five times a week thruout the year. *Required for graduation.*

Daily, 1:00

PHYSICAL EDUCATION 12. Advanced practical gymnastics. A continuation of Physical Education 11. Three credits. Five times a week thruout the year. *(Required for graduation.)*

Sec. 1. 11:20; sec. 2. 2:00

PHYSICAL EDUCATION 13. Aesthetic and fancy dancing. An advanced course in which simple and advanced technique is emphasized. Gilbert, Chalif, and Hinman dancing; interpretative and dance composition are given. Three times a week thruout the year. Two credits. Open to all women who have completed Physical Education 11 and 12.

Mon. Wed. Fri. 2:50

PHYSICAL EDUCATION 14. Baseball, basketball, volley ball, cross country running, tennis, field hockey, and swimming. Twice a week thruout the year. One credit. Open to all women who have completed Physical Education 11 and 12.

Tu. Th. 2:50

PHYSICAL EDUCATION 15. Social dancing for men and women. Instruction in the standardized modern dances. The year will be divided into periods of six weeks each. Section 1 will meet three times a week during the first period; section 2, three times a week during the second period, and so on. As only a limited number can be accommodated in a section, the registration must be approved by a member of the department of Physical Education.

Mon. Wed. Fri. 4:30

PHYSICS

PROFESSOR F. L. WEST

MR. EDLEFSEN

1a, 1b, 1c. GENERAL PHYSICS. The elements of physics, including mechanics, heat, electricity and magnetism, sound, and light. Lectures are illustrated by experiments and lantern slides. Two recitations and one laboratory period thruout the year. Six credits. Laboratory fee, \$2. Physics 1b. (electricity and magnetism) is open for Winter course students.

Rec. Tu. Th. 8:50; lab. any afternoon 2 to 4:30

Professor F. L. West

2a, 2b, 2c. GENERAL COLLEGE PHYSICS. A survey of the whole field of physics in order to lay a thoro foundation for the subsequent study of this and related subjects. Prerequisite, high school physics. Three recitations and two laboratory periods, thruout the year. Nine credits. Laboratory fee, \$4.

Rec. Mon. Wed. Fri 8:50; lab. Mon. Wed. or Tu. Th. 2 to 4:30

Professor F. L. West

3. ELEMENTARY APPLIED MECHANICS, THERMODYNAMICS, STEAM AND GASOLINE ENGINES. Four credits.

(Not given in 1917-18)

4. APPLIED ELECTRICITY. Five recitations a week. Fall term. Three credits. Prerequisite, elementary physics.

Daily, 9:40

Professor F. L. West

5. CHEMICAL PHYSICS. Including the atomic theory; kinetic theory of gases; gaseous, liquid, and solid states; solutions; thermo-chemistry; electro-chemistry; and radio-activity with special emphasis on osmotic pressure and diffusion. Prerequisites, elementary physics and chemistry. Winter term. Five recitations. Three credits.

Daily, 9:40

Professor F. L. West

6. METEOROLOGY OR PHYSICS OF THE ATMOSPHERE. The methods of weather observations, predictions, frost warnings and the relation of climate to agriculture. Prerequisite, elementary physics. Spring term. Five recitations a week. Three credits.

Daily, 9:40

Professor F. L. West

7. ADVANCED LABORATORY WORK. Two to ten credits. Laboratory fee \$2 to \$10.

Daily, 2:30

8. MECHANICS, LIGHT, SOUND, THERMODYNAMICS AND PHYSICAL CHEMISTRY. Prerequisite, calculus.

(Not given in 1917-18)

9. ELECTRICITY AND MAGNETISM. Four credits.

(Not given in 1917-18)

10. ALTERNATING CURRENT ELECTRICITY AND ITS APPLICATION TO INDUSTRY. Three recitations a week thruout the year. Six credits. Fall, Winter, and Spring terms.

Rec. Mon. Wed. Fri. 10:30

Professor F. L. West

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR GREAVES
PROFESSOR R. O. PORTER
MR. CARTER

1. **PHYSIOLOGY.** Movement, sensation, circulation, and respiration; questions of hygiene and sanitation. Three hours. Fall term. Three credits.

Daily, 8:50

Professor R. O. Porter

2. **DIGESTION, ABSORPTION, AND METABOLISM.** A continuation of Physiology 1. Digestion, absorption, metabolism and closely related subjects. Winter term. Three credits.

Daily, 8:50

3. **PHYSIOLOGICAL CHEMISTRY.** The transformations going on in the plant and animal organism. Winter term. Three credits.

Daily, 8:50

Professor Greaves

4. **PHYSIOLOGICAL CHEMISTRY.** May accompany the preceding course. Six hours' laboratory work a week. Winter term. Two credits. Laboratory fee, \$1.

Tu. Th. 2 to 4:30

Professor Greaves and Mr. Carter

POLITICAL SCIENCE

PROFESSOR HENDRICKS
PROFESSOR DAINES
MR. _____

a. **INDUSTRIAL AND COMMERCIAL LAW.** The elementary principles of law relating to common business transactions, including contracts, sales, promissory notes and bills of exchange, contracts of common carriers, agency, partnership and corporations. Winter and Spring terms.

Daily, 8:00

b. CIVICS. United States government for the practical student. Five hours. Fall term.

Daily, 8:00

1. GOVERNMENT. The science of government studied from the theoretical and also from the practical points of view. Five hours. Winter and Spring terms.

Daily, 8:50

4. The law of contracts; the law of agency; the law of partnership and of commercial paper. Six credits.

(Not given in 1917-18). (Not open to freshmen.)

5. THE LAW OF REAL ESTATE, of sales, of debtor and creditor, of suretyship; of insurance, of banks and bankruptcy, and of corporations. Fall and Winter terms.

(Not open to freshmen.)

Daily, 8:50

6. IRRIGATION LAW, OR THE LAW OF WATERS. The right of appropriation, natural and artificial water courses, limitation of use, protection of rights, disposal of rights, percolating water, distribution of water, etc.

(Not given in 1917-18).

ROADS

PROFESSOR WM. PETERSON

1. ROAD CONSTRUCTION. Road location, grade, drainage, resistance to traction, road materials, cost of construction and of machinery for preparing road material. Five hours. Fall term. Three credits.

Daily, 11:20

2. ROAD MAINTENANCE. Width of tires and size of wheels, keeping up the road, repairing worn surfaces, maintaining drainage, employment of labor, cost of maintenance, comparison of different road machines. Prerequisite, Roads 1. Five hours. Winter term. Three credits.

Daily, 11:20

3. **BRIDGE BUILDING.** Methods of bridge construction, materials used, and the amount of stress on arches of various kinds; the relative cost, strength, and durability of different bridges. Special attention is given to small bridges and culverts. Three hours, one term. Three credits.

4. **ROAD MATERIALS.** A study of the various materials used in the construction and maintenance of roads. Special attention is given to the materials available to Utah farmers. Prerequisite, Geology 2 or 4. Three hours. Winter term. Two credits.

Lec. Tu. Th. 8:50; lab. 2 to 4:30

See Agricultural Engineering and Geology, for related work.

SOCIOLOGY

PROFESSOR HENDRICKS

ASSISTANT PROFESSOR BROOKE

1. **PRINCIPLES OF SOCIOLOGY.** The foundations of sociology; social organs, social structure, and social activities. Fall and Winter terms. Six credits.

Daily, 8:50

2. **RURAL SOCIOLOGY.** The principles of sociological science applied to the problems of modern agricultural and rural communities. Spring term. Three credits.

Daily, 11:20

See Economics, for related work.

STENOGRAPHY AND TYPEWRITING

PROFESSOR P. E. PETERSON

MR. HOWELL

STENOGRAPHY

a. The fundamental rules of the Isaac-Pitman system, the Centenary Edition being used. Five hours thruout the year. Nine credits.

Daily, 8:50

b. A continuation of a, in which the rules of the system will be thoroly reviewed and applied. The work in the last term will include office training and business practice, in order to familiarize the student with the use of modern office appliances. Five hours thruout the year. Nine credits.

Daily, 9:40

c. Devoted strictly to the acquisition of speed, and open to the writers of any system. Fall and Spring terms only. Six credits.

Daily, 2:00

SPECIAL. A special class will be held daily for such students as desire to take stenography during the Winter term, the work given being the same as Stenography a. Five hours thru the term. Three credits.

Daily, 2:00

TYPEWRITING AND PENMANSHIP

a. Correct fingering and proper manipulation of the machine. Five hours thruout the year. Two credits.

Daily, any hour

b. Daily exercises in which accuracy is required. Monthly speed tests. Five hours thruout the year. Two credits.

Daily, any hour

c. The development of a free, legible, business hand. Penmanship students will meet every Friday at 2:20. One hour thruout the year. Two credits.

1. For college students; all stenographic students must take this course: the transcription of notes on the machines. Five hours thruout the year. Two credits. At any hour suitable to student.

Special prizes are offered by typewriter firms for special ability.

See Accounting and Business Practice, for related work.

VETERINARY SCIENCE**PROFESSOR FREDERICK**

1. **VETERINARY ELEMENTS.** Introduction to anatomy and physiology and the common ailments of domestic animals; the most prevalent diseases, their distribution, causes, symptoms, course, diagnosis and treatment; observation and practice in the free weekly clinics. Four hours' class with three hour clinic. Fall or Winter term. Three credits.

Lec. Mon. Tu. Th. Fri. 8:50; lab. Wed. 2 to 4:30

Professor Frederick

2. **COMPARATIVE ANATOMY.** For students in agriculture and animal husbandry especially. Also students wishing to follow veterinary science. This course is supplemented with practical work in dissection, and illustrated by skeletons and models. Three lectures and laboratory thruout the year. Six credits.

Lec. Mon. Wed. Fri. 11:20; lab. Fri. 2 to 4:30

Professor Frederick

3. **OBSTETRICS.** Obstetrical anatomy, reproduction, hygiene of pregnant animals. Obstetric operations, accidents of parturition, and diseases of the new-born. The college herd and the surrounding stock breeding community give ample opportunity for practical work. Two hours Winter and Spring terms. Three credits.

Lec. Tu. Th. 11:20

Professor Frederick

4. **PHYSIOLOGY.** The vital functions of the different species of domestic animals and those of the human body are compared; the physical and chemical laws as related to physiology; the general properties of animal cells,—their origin, development and growth; special physiology of the various organs and tissues of the animal body. Three lectures a week, thruout the year. Six credits.

Lec. Mon. Wed. Fri. 10:30

Professor Frederick

5. CLINICS. Free clinics at the hospital, in which students of veterinary science must assist. The numerous cases represent all diseases common to this locality and furnish the clinic with abundant material for observation and practice. Hours and credits to be arranged. Thruout the year.

Clinics. Wed. 2 to 4:30; Vet. Hospital

Professor Frederick

6. PRINCIPLES OF HORSE SHOEING. The anatomy and physiology of the horse's foot; the form of the foot and direction of the limb; variations in the flight of the foot, style of going, shoeing of normal and irregular feet; winter shoeing; correction of defects in gait and methods of shoeing hoofs defective in form or diseased. Three hours Winter term, repeated Spring term. Two credits.

Lec. Mon. Wed. Fri. 8:00

Professor Frederick

7. HYGIENE AND INFECTIOUS DISEASES. A continuation of Veterinary Science 1. A discussion of water and food supply, disinfection, care and management of animals and feeding of sick animals.

The common infectious diseases prevalent here, methods which should be adopted in their control and eradication. Tests applied for diagnosis, vaccination and serum treatment of animals. Four hours and one laboratory. Winter term, repeated Spring term. Three credits.

Lec. Mon. Tu. Th. Fri. 9:40

Clinic. Wed. 2 to 4:30; Vet. Hospital

Professor Frederick

ZOOLOGY

PROFESSOR HENDERSON
ASSISTANT PROFESSOR HAGAN
MR. SORENSON
MR. LARSON

ZOOLOGY 1. Human Anatomy. An historical study of the anatomical structure of the human body from the standpoint of comparative anatomy. Two recitations and one laboratory period thruout the year. Six credits. Laboratory fee, \$1.

Rec. Tu. Th. 8:00; lab. Fri. 2 to 4:30

Mr. Larson

ZOOLOGY 2. General Zoology. A study of the relations of various groups of animals to one another; emphasis upon the gross structure, development and relation of the organs in the different groups. Three recitations and two laboratories. Two terms. Six credits. Laboratory fee \$2.

Sec. 1. Rec. Mon. Wed. Fri. 11:20; lab. Tu. Th. 2 to 4:30

Fall and Winter terms.

Sec. 2. Rec. Mon. Wed. Fri. 8:50; lab. Mon. Wed. 2 to 4:30

Winter and Spring terms.

Mr. Sorenson

ZOOLOGY 3. Principles of Breeding. The biological principles of life and the inheritance of characters. Five lectures, one term. Three credits.

Sec. 1. Daily, 9:40. Fall term.

Sec. 2. Daily, 11:20. Winter term.

Professor Henderson

ZOOLOGY 4. Eugenics. The principles of inheritance as applied to the human race. Special attention is given to the heredity of physical, mental and moral characters, and their effect on the race. Prerequisite, Zoology 3. Five lectures, one term. Three credits.

Sec. 1. Daily, 9:40. Winter term.

Sec. 2. Daily, 11:20. Spring term.

Professor Henderson

ZOOLOGY 5. Histology. The development of the elementary tissues and their microscopic structure. Methods of preparing, staining and mounting tissues. Two lectures and two laboratory periods, throuout the year. Eight credits. Alternates with Zoo. 6.

(Not given in 1917-18).

ZOOLOGY 6. Embryology. Development of the cell and the formation of the various membranes, followed by the development of the central nervous system and the related sense organs. Two recitations and two laboratory periods, thruout the year. Eight credits. Laboratory fee \$2.

Rec. Tu. Th. 10:30; lab. Mon. Wed. 2 to 4:30

Assistant Professor Hagan

ZOOLOGY 7. Advanced Zoology. The classification, structure and comparative anatomy of the common intermountain forms, especially those of the vertebrate group. Three recitations and two laboratory periods. Fall and Winter terms. Six credits. Laboratory fee, \$1.

Rec. Mon. Wed. Fri. 8:00; lab. Mon. Wed. 2 to 4:30

Mr. Sorenson

ZOOLOGY 8. Economic Zoology. The food habits of our common birds and injurious mammals; their relation to agricultural interests; methods of control. Four lectures and one laboratory period. Winter term. Three credits.

Lec. Tu. Wed. Th. Fri. 10:30; lab. Fri. 2 to 4:30

Mr. Sorenson

ZOOLOGY 9. Parasitology. Structure and life history of animal parasites. Special attention is given to arthropods that act as carriers of organisms injurious to man and the domestic animals. Four lectures and one laboratory period. Fall term. Three credits. Laboratory fee, \$1.

Lec. Mon. Tu. Wed. Th. 8:50; lab. Fri. 2 to 4:30

Mr. Sorenson

ZOOLOGY 11. Research upon topics of special interest; such as eugenics, ecology and morphology. Thesis. Hours to be arranged.

See Entomology, for related work.

Twenty-Third Annual Commencement

June, 1916

GRADUATES WITH DEGREE OF BACHELOR OF SCIENCE

AGRICULTURE

Agronomy

Anderson, Andrew William.....	Fairview
Barber, Walter Farrell.....	Logan
Boswell, Stephen Roy.....	Nephi
Bowers, Ernest.....	Nephi
Burnett, Grover.....	Challis, Idaho
Burt, Kenneth.....	Springville
Edlefsen, Neils Edlef.....	Logan
Esplin, Alma.....	Orderville
Halverson, William Vernal.....	Spanish Fork
Johnson, Floyd.....	Preston, Idaho
Jones, David William.....	Malad, Idaho
Lee, Fay Warren.....	Hoytsville
McAlister, Ward Richards.....	Logan
McAlister, Wallace Snow.....	Logan
Madsen, Orson Perry.....	Logan
Murray, David Parker.....	Wellsville
Nelson, Irvin Theodore.....	Morgan
Nelson, Lowry.....	Ferron
Oldroyd, Lorin Todd.....	Richleld
Owens, Stephen Lester.....	Willard
Pope, John Cornelius.....	Ogden
Rigby, Elmer Clarke.....	Newton
Smith, Heber Laurence.....	Logan
Smith, Joseph Fish.....	Snowflake, Arizona
Starley, William J.....	Fillmore
Stott, Charles Orval.....	Meadow
Tanner, Byron Spiers.....	Whitney, Idaho
Thackeray, Mark.....	Croyden
Willie, Leon.....	Mendon
Wilson, Leroy Albert.....	Sandy
Winder, Edwin Kent.....	Salt Lake City
Woolley, John Franklin.....	Grantsville

Animal Husbandry

Bown, Hyrum Braithwaite.....	Manti
Caine, Arthur Hugh.....	Logan

Coray, Francis.....	Ogden
Crook, William Clark.....	Heber
Fordham, George Albert.....	Santa Clara
Harmon, Irvin Woodbury.....	St. George
Hendricks, Walstein Hyer.....	Richmond
Hillam, Leroy Wareing.....	Salt Lake City
Maughan, Joseph Howard.....	Preston, Idaho
Murdock, Wallace Sessions.....	Heber
Owens, William White.....	Willard
Peterson, Martin Benjamin.....	Riverton
Rouse, John Elmer.....	Springville
Smith, Willis.....	Ogden

Botany

Evans, William Henry.....	Springville
Nichols, Faunt Bervard.....	Brigham
Peterson, John Quayle.....	Ephraim
Wilson, Alma Lavoy.....	Hooper

Chemistry

Gardner, Robert.....	Logan
Vorhees, Glenn Lavar.....	Manti

Entomology

Larsen, Andrew Olof.....	Ferron
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Horticulture

Frew, Arnold.....	Hooper
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AGRICULTURAL ENGINEERING AND MECHANIC ARTS

Agricultural Engineering

Birch, James Byron.....	Coalville
Brossard, Howard Sylvester.....	Logan
Hammond, Floyd Austin.....	Logan
Luke, Melvin.....	Junction
McDonald, Storm.....	Heber
Madsen, Stanford.....	Manti

Mechanic Arts

Spendlove, James Jepson.....	Garfield
Van Leuven, Edwin Perry.....	Springville
Pitman, Don Warren.....	Logan

Master of Science

Robinson, Jesse Skeen.....	Paragoonah
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COMMERCE

Barber, Seth Langton.....	Logan
Clark, Dean Adolphus.....	Provo
Doutre, William.....	Logan

Dunford, Grover Cleveland.....	Logan
Freedman, David Aaron.....	Salt Lake City
Heyrend, Wilford Frederic.....	Logan
Keller, Bessie Ellen.....	Logan
Lee, Eli Fosgren.....	Brigham
Morris, Edward Newland.....	Logan
Nielsen, Joseph.....	Hyde Park
Quinney, Seymour Joseph.....	Logan
Schow, Frederick S.....	Richmond
Smith, Willis Alvin.....	Preston, Idaho
Thomas, Albert.....	Samaria, Idaho

GENERAL SCIENCE

Aldous, Tura Merrill.....	Sterling, Idaho
Cannon, Helen.....	Salt Lake City
Carlson, Conrad Stark.....	Logan
Carrington, Albert Calvin.....	Logan
Fishburn, Hope.....	Brigham
Lund, Yeppa.....	Logan
Merrill, Harrison Reuben.....	Preston, Idaho
Nelson, Enoch.....	Mink Creek, Idaho
Osmond, Charles Anson.....	Logan
Richardson, Jacob Zebulon.....	Logan
Smith, Clarence Emmanuel.....	Riverside
Taylor, Lee Raymond.....	Payson
Thatcher, Nathan Davis, Jr.....	Thatcher, Idaho
Willey, Archer.....	Castle Dale

HOME ECONOMICS

Anderson, Nettie Mirl.....	Brigham
Bagley, Kathleen.....	Murray
Calvert, Alta.....	Ogden
Christensen, Gladys Ledingham.....	Logan
Dinsmore, Florence.....	Ogden
Edmunds, Anna.....	Wales
Faux, Goldie Dorothea.....	Moroni
Gledhill, Stella Viola.....	Ogden
Hale, Ethel.....	Logan
Johnson, Ruth.....	Logan
Mohr, Anna Laura.....	Logan
Ostlund, Lillian Tooela.....	Logan
Snyder, Margaret.....	Salt Lake City
Taggart, Harriet Josephine.....	Ogden
Taylor, Anna Kierstina.....	Provo
White, Hortense.....	Beaver

Honors, 1916-17

Scholarship. The following students have been selected as deserving special distinction for high achievement in scholarship. They will, accordingly, receive either a "Scholarship A" or "Honorable Mention" for scholarship:

Scholarship "A":

Joseph E. Otte
Jesse S. Eccles
Erma Allen
Camilla Eyring
Ruth Rosengreen
Garfield Bastow

Honorable Mention:

S. L. Ballif
Lora Bennion
Theresa Horne
Violet A. Peterson
Stella Young
John W. Wright

Debating:

Intercollegiate debate:

Harold Peterson
Moses F. Cowley
Heber Meeks
W. J. Snow
Ivor Sharp
J. Kenneth Cannon
Lorenzo Hatch
W. J. Merrill
George H. Hansen
Samuel Morgan

Winners of Inter-class debate:

Russel Croft
J. Waldo Parry

Oratory:

The Hendricks medal was won by:

Moses F. Cowley

*The Medal offered by The Sons of the American
Revolution won by:*

Harold Peterson

Student Body Officers:

R. J. Becraft, President
Moses F. Cowley
Erma Allen
Jesse Eccles
C. D. Kapple
Edith Hayball
Grover E. Lewis
E. J. Kirkham
Hulme Nebeker
Clyde Stratford
Berton M. Fitzgerald
Ivor Sharp
Byron Howells
Leo B. Sharp
Delore Nichols
Harold Peterson

"Student Life" Staff:

H. Grant Ivins, Editor
Moses F. Cowley, Business Manager
J. W. Thornton
Harold Peterson
Erma Allen
Heber Morrell

"Buzzer" Staff:

Heber Meeks, Editor
J. Arno Kirkham, Business Manager
Ina Porter
Eloise Jones
Edith Hayball
Harry Halton
Sumner Hatch
LaVon Bennion
Lyle Judd
Rachel Dunford
Howard Christiansen
F. C. Braithwaite

Battalion Roster:

Major—Moses F. Cowley
 Lieutenant and Adjutant—Lee Dean
 Lieutenant and Quartermaster—Miles Browning

Company A

Captain—Sumner Hatch
 First Lieutenant—Thomas Hughes
 Second Lieutenant—E. C. Kent

Company B

Captain—H. M. Earl
 First Lieutenant—J. M. Hughes
 Second Lieutenant—Wm. Turner

Company C

Captain—George Holmstead
 First Lieutenant—Irving Jenson
 Second Lieutenant—Carl Peterson

Company D

Captain—E. F. Richards, Jr.
 First Lieutenant—J. M. Woodhouse
 Second Lieutenant—Clyde Haskins

List of Students, 1916-17

(Not including Farmers' Conventions and Housekeepers' Conferences)

In the following list "a" stands for agriculture; "ae" for agricultural engineering; "ho" for home economics; "c" for commerce; "ma" for mechanic arts; "g" for general science; "m" for music; "ss" for summer school; "w" for winter course; "G" for graduates; "S" for seniors; "J" for juniors; "So" for sophomores; "F" for freshman; "Sp" for special; "p" for practical course.

Adams, Ellen Livonia, ho-Sp	Logan
Adams, Erma D., c-F	Logan
Adams, Floyd, ma-W	Logan
Adams, Hyrum J., ma-W	Logan
Adams, Jeanette, ss	Logan
Adams, Okeath E., ae-W	Layton
Adams, Otis I., ae-W	Layton
Adams, Vaughn, ae-Sp	Monticello
Adams, Venice, c-W	Logan
Adderley, Chas. Willard, c-F	Bingham
Aebischer, Albert K., ma-W	Logan
Aitken, Adren, g-F	Richmond
Aldous, Clarence M., a-S	Sterling, Idaho
Aldous, Tura M., g-G	Sterling, Idaho
Alexander, Guy B., g-Sp	Heber
Allen, Erma, ho-S ss	Salt Lake City
Allen, Jeanette, g-So	Kingston
Allen, Viola, ho-So	Raymond, Alta, Canada
Allred, Coral, a-F	Logan
Allred, M. Thatcher, g-F	Blackfoot, Idaho
Amussen, Eleonora, ho-Sp	Logan
Anderson, Christian W., ma-W	Shelley, Idaho
Anderson, Ernest Dewey, a-W	Shelley, Idaho
Anderson, Fedora, ho-Sp	Hyrum
Anderson, Ferris L., ae-Sp	Lehi
Anderson, Hans P., a-G ss	Hyrum
Anderson, Mrs. J. A., ss	Trenton
Anderson, Jas. Ira, ae-S	Ogden
Anderson, Lucille, ho-F	Manti
Anderson, Luella E., g-F	Logan
Anderson, Mabel, ho-W	Shelley, Idaho
Anderson, Rulon Jos., ma-W	Hyrum
Anderson, Stanley R., a-F	Ephraim
Anderson, Violet, ss	Ogden
Andreason, Alma Marion, ae-So	Hyrum
Andrew, David Earl, a-Sp	Salt Lake City
Andrews, Lawrence, ae-Sp	Logan

Archibald, Gilbert, ma-W.....	Clarkston
Arnold, Melvin S., a-F.....	Grange
Ashton, Harry B., c-P.....	Provo
Ashton, Jas. T., ma-W.....	Salt Lake City
Atkin, Patra, ss.....	Salina
Atkinson, Earl Jos., g-F.....	Dayton, Idaho
Atkinson, Thos. A., ma-W.....	Rexburg, Idaho
Atkinson, Wando E., ma-W.....	Rexburg, Idaho
Austin, Clarence, a-W.....	Garland
Austin, Clifford, a-W.....	Provo
Austin, Edwin Gean, g-F.....	Montpelier, Idaho
Austin, Edwin N., a-W.....	Salt Lake City
Austin, Wayne, ae-Sp.....	Montpelier, Idaho
Avedian, Giragos, g-So.....	Sivas, Armenia
Backman, Albert E., a-J.....	Santaquin
Bacon, Helen, ss.....	Los Angeles, California
Baer, Vernon, ss.....	Providence
Baker, Dan, c-J.....	Monroe
Baker, Ernest J., g-F.....	Monroe
Baker, Lorin M., ae-F.....	Teton City, Idaho
Baker, Sophia, ss.....	Logan
Ballif, Serge Louis, c-F.....	Preston, Idaho
Ballinger, Zelta, ss.....	Ogden
Bailey, Irene, ss.....	Sugar Station
Bailey, Irma, ss.....	Liberty
Bankhead, David H., c-P.....	Logan
Banks, Mary Jane, c-P.....	Spanish Fork
Barber, Adaliene, g-So.....	Logan
Barber, Adeline, c-Sp.....	Logan
Barber, Ellen, g-So.....	Logan
Barber, Frances, ss.....	Logan
Barber, Geo. Percy, g-So.....	Logan
Barber, H. Raymond, ae-W.....	Logan
Barber, Langton, ss.....	Logan
Barber, Mary, ho-So.....	Freedom, Wyo.
Barber, Solon Ray, g-So.....	Logan
Barber, Wynona, ho-Sp.....	Logan
Barker, Lena, ho-F.....	Ogden
Barker, Roy, a-F.....	Price
Barlow, Fielding B., a-So.....	Ogden
Barrett, Walter, a-W.....	Logan
Barron, Geo. L., ss.....	Logan
Barrus, John, a-Sp.....	Spring Coulee, Alta, Canada
Barson, Laree, ho-Sp.....	Clarkston
Barson, Peter E., ma-W.....	Clarkston
Bastow, Garfield, ae-Sp.....	Logan
Bastow, Mary, ss.....	Logan
Bateman, Geo. Q., a-So.....	Sandy
Bateman, Jas. Robt., a-So.....	Sandy
Bates, Geo. S., c-S ss.....	Monroe
Bates, Leo, a-Sp.....	Oakley, Idaho
Batt, Myrtle, ho-Sp.....	Logan

Baugh, Francis H., Jr., g-Sp.....	Logan
Bawden, Orin R., a-W.....	Grange
Baxter, Maude, ss.....	Salt Lake City
Bayles, Emma, ho-F.....	Blanding
Bean, Margaret, ss.....	Teton, Idaho
Bearson, Wm. Leroy, c-J.....	Kenilworth
Beaumann, Nettie, g-F.....	Mt. Pleasant
Beck, Abel, a-W.....	Spanish Fork
Beckstrom, Marvin, a-Sp.....	Panguitch
Becraft, Raymond J., a-S.....	Brigham
Beech, Lyle, a-F.....	Sugar City, Idaho
Bell, A. Mervill, ma-W.....	Crystal, Idaho
Bennion, Edwin A., a-Sp ss.....	Logan
Bennion, La Von, g-J ss.....	Logan
Bennion, Lora, ho-So ss.....	Logan
Bergeson, Erven, ma-W.....	Logan
Beus, Zina, ho-F.....	Ogden
Bigelow, Silas H., a-W.....	Cardston, Alta, Canada
Binder, Albert, ma-W.....	Logan
Bingham, Della, ho-Sp.....	Smithfield
Bingham, Martha, ss.....	Ogden
Bjorkman, Arthur E., ae-Sp.....	Logan
Black, Homer, g-P.....	Blanding
Blackburn, Ernest E., a-Sp.....	Delta
Blackner, Arnold E., g-P.....	Lyman, Wyo.
Blanch, Wheatley, ma-W.....	West Weber
Blanchard, Idona V., c-P.....	Logan
Blanchard, Leon O., ma-Sp.....	Logan
Blonquist, Vern, a-W.....	Richfield
Bluemel, Grace B., c-Sp.....	Logan
Boberg, Elroy, a-J.....	Draper
Bohne, Ervin F., ma-W.....	Mt. Pleasant
Boman, Milton, a-W.....	Lewiston
Bond, Wm. Jos., ae-ma-S.....	Heber
Booth, Leslie, G-F.....	Nephi
Bowen, David B., ma-S.....	Spanish Fork
Bowen, Edith, ss.....	Logan
Bowen, Leslie, ae-F.....	Spanish Fork
Bowman, Pearl, ss.....	Ogden
Bown, Hyrum B., ss.....	Manti
Boyer, Louis J., a-F.....	Springville
Bracken, Aaron F., a-G.....	Freedom, Wyo.
Braithwaite, Frederick C., g-J.....	Salt Lake City
Braley, Wayne M., a-F.....	Blackfoot, Idaho
Brimhall, John E., a-P.....	Lovell, Wyo.
Brinkerhoff, Minnie, c-P.....	Bicknell
Brossard, E. B., ss.....	Logan
Brown, Edna M., ss.....	Fairview, Wyo.
Brown, Eva E., ss.....	Ogden
Brown, Merle E., a-F.....	Draper
Browning, Miles, c-So.....	Ogden
Buck, Edith E., ho-Sp.....	West Weber

Budge, Alfred H., g-So.....	Boise, Idaho
Budge, Drew W., c-Sp.....	Boise, Idaho
Budge, Preston M., a-So.....	Paris, Idaho
Budge, Scott M., g-So.....	Logan
Buell, Owen F., ma-So.....	Heber
Buhler, Morris, ma-W.....	Midway
Bunker, Lamond, a-W.....	Delta
Burgoyne, David, c-So.....	Logan
Burke, Chas. Walter, a-W.....	Hinckley
Burmington, John H., Jr., ma-W.....	Bountiful
Burnham, Anna Edna, ho-So ss.....	Brigham
Burnham, Linda, ss.....	Richmond
Burnham, Virginia, ho-Sp.....	Logan
Burt, Maggie G., ss.....	Murray
Burton, Arthur D., a-F.....	Ogden
Butler, Eva, ho-So.....	Sandy
Butt, N. I., a-G.....	Logan
Buttars, Benj. C., ma-W.....	Clarkston
Bushman, Vera, ss.....	Lehi
Bybee, Harold, ss.....	Rigby, Idaho
Bybee, Reese L., ma-W.....	Lyman, Idaho
Caffey, Andy, a-F.....	Salt Lake City
Caine, Kinnie C., ho-Sp.....	Logan
Call, Rose, ho-Sp.....	Logan
Campbell, Abel L., a-Sp.....	Providence
Campbell, Alma J., a-Sp.....	Elko, Nev.
Campbell, Cyrene, ho-Sp.....	Providence
Campbell, Hyrum A., ma-W.....	Providence
Canfield, Jas. W., g-So.....	Enterprise
Canno, Clawson Y., ss.....	Boise, Idaho
Cannon, Douglas Q., a-So.....	Salt Lake City
Cannon, Elizabeth, ho-J.....	Salt Lake City
Cannon, J. Kenneth, a-G.....	Logan
Cannon, Marguerite, c-J ss.....	Logan
Cannon, Wm. Tenney, a-Sp.....	Salt Lake City
Capener, Verna, ho-F.....	Garland
Cardon, Grace, ho-J.....	Logan
Cardon, Harriet Claire, g-So.....	Logan
Carlile, Martha, g-J.....	Logan
Carlson, Conrad S., ss.....	Logan
Carlson, Mayme, ss.....	Logan
Carlson, Olga, g-So.....	Logan
Carlson, Wm. Rouiece, a-J.....	Cardston, Alta, Canada
Carter, Ezra G., g-G.....	Logan
Cazier, Lila E., ho-Sp.....	Cardston, Alta, Canada
Chadwick, Pearl, ho-Sp.....	Logan
Chambers, Veda, ss.....	Smithfield
Charlton, Francis E., a-Sp.....	Salt Lake City
Child, V. C., ss.....	Chester
Chipman, Stella, c-Sp.....	American Fork
Christensen, Axell, a-G.....	Logan
Christensen, Fred Rodney, ae-W.....	Ephraim

Christensen, Gladys, ho-G.....	Logan
Christensen, Glenn, a-F.....	Elsinore
Christensen, Marie, ho-W.....	Shelley, Idaho
Christensen, Mary, ss.....	Salina
Christensen, Sophrona, ho-Sp.....	Bear River City
Christiansen, Camille, c-F.....	Joseph, Idaho
Christiansen, El Roy L., a-Sp.....	Mayfield
Christiansen, Howard A., c-J.....	Richfield
Christiansen, Irma V., ho-F ss.....	Hyrum
Christiansen, Kenneth W., c-F.....	Joseph, Idaho
Christiansen, Ole, a-J ss.....	Nephi
Chugg, Mabel, ss.....	Far West
Clark, Horal G., c-So.....	Morgan
Clark, Jesse, a-W.....	Morgan
Clark, Lucius, ss.....	Preston, Idaho
Clark, Jennie, g-Sp.....	Clarkston
Clark, Nathan Ford, c-Sp.....	Logan
Clark, Sylvan W., a-Sp.....	Lehi
Clawson, Elmer C., g-So.....	Providence
Clayton, Mary V., g-F.....	Salt Lake City
Clinger, Kenneth, ma-W.....	Rigby, Idaho
Closner, Jas., ma-W.....	Hotchkiss, Colo.
Coffman, Dora, ho-Sp.....	Sprinvville
Coffman, Elmo, ae-J.....	Springville
Condie, John W., ss.....	Preston, Idaho
Conkwright, Alden H., a-F.....	Salt Lake City
Connell, Jos. Walter, ae-S.....	Parowan
Cook, Evelyn, ho-S.....	Salt Lake City
Cook, Geo. B., a-So.....	Willard
Cooper, Laura, ho-So ss.....	Brigham
Cornwall, Lottie, ss.....	Murray
Cowley, Jos. Elmer, ma-W.....	Venice
Cowley, Moses F., c-J.....	Salt Lake City
Cowley, Samuel, a-Sp.....	Logan
Cox, David J., g-J.....	Logan
Crabb, Mildred, ho-F.....	Elsinore
Cragun, Dresden J., a-S.....	Smithfield
Cragun, Eva, ho-F.....	Ogden
Crane, Alma E., a-F.....	Draper
Crane, Franklin, a-Sp.....	Salt Lake City
Cranney, Cleo, g-Sp.....	Logan
Cranney, Fay, ss.....	Logan
Crockett, Genevieve, c-Sp.....	Logan
Croft, Geo. Albert, g-J.....	Ogden
Croft, A. Russell, ae-ma-So.....	Ogden
Crook, Reno, a-W.....	Heber
Crookston, Edna, ho-Sp.....	Logan
Crookston, Laurn E., a-Sp.....	Logan
Crookston, Nicholas L., ss.....	Logan
Crowther, Marilla, g-Sp.....	Logan
Cummings, Clay, a-Sp.....	Heber
Curtis, Heber A., a-S.....	Payson

Curtis, Nick J., c-Sp.....	St. Mavra, Greece
Cutler, Lapriel, ho-F.....	Logan
Cutler, Marion, ho-F.....	Shelley, Idaho
Dahle, Ada, ho-W.....	Logan
Dahlquist, Scott A., c-Sp.....	Salt Lake City
Daines, Clyde J., g-S ss.....	Hyde Park
Daines, Gladys, ho-Sp ss.....	Logan
Daines, Newel G., g-F.....	Logan
Davey, Hazel, ho-F.....	Salt Lake City
Davidson, Georgene, ho-S ss.....	Logan
Davidson, Myrtle, ho-S ss.....	Logan
Davies, Hillman, g-So.....	Fillmore
Davis, George, a-W.....	Ogden
Davis, Hugh C., ss.....	Garland
Davis, Lorenzo, a-P.....	Hillspring, Alta, Canada
Day, Henry Earl, ma-W.....	Hunter
Deal, Stephen, c-F.....	Springville
Dean, Arvel Wm., a-Sp.....	Knight, Wyo.
Dean, Lee, g-J.....	Bingham
Deason, Helen A., ss.....	Park City
Decker, Virgil, ae-ma-Sp.....	Parowan
Despain, Lawrence M., ae-F.....	Sandy
Despain, Mervin, a-W.....	Sandy
De Young, Joseph, c-Sp.....	Ogden
Dimick, Donald Alma, c-W.....	Montpelier, Idaho
Dinsmore, Florence, ho-G.....	Ogden
Doney, Wm., a-F.....	Franklin, Idaho
Donkin, Raymond E., a-Sp.....	Salt Lake City
Douglas, Maude, ss.....	Wellsville
Drinen, Arthur R., ae-F.....	Salt Lake City
Drysdale, Elizabeth, c-Sp.....	Logan
Dudley, Wallace, ma-W.....	Raymond, Alta, Canada
Duffin, Cyril, c-Sp.....	Provo
Duffin, Rachel, ho-Sp.....	Provo
Duke, Arthur Vance, a-F.....	Heber
Duke, Fay, a-F.....	Heber
Dunbar, Wallace E., ae-W.....	Logan
Dunford, Carlos L., a-S ss.....	Logan
Dunford, Hazel L., ss.....	Logan
Dunford, Rachel G., ho-J.....	Salt Lake City
Dunn, Nadine, ho-So.....	Brigham
Durfey, Irene, ss.....	Logan
Durham, Vera, g-F.....	Logan
Durtschi, Fred, ma-Sp.....	Charlston
Durtschi, John J., a-F.....	Charlston
Earl, Homer Mark, c-So.....	Idaho Falls, Idaho
Eames, Ezra, Jr., ma-W.....	Logan
Earl, Ernest E., ma-W.....	Logan
Eberle, Lillie, ho-Sp.....	Ogden
Eccles, Emma S., g-So.....	Logan
Eccles, Jessie S., g-S ss.....	Logan
Eddington, Errol, a-F.....	Morgan

Edlefsen, N. Edlef, a-G.....	Logan
Edwards, Mary Alice, g-Sp.....	Logan
Egbert, Anna, g-F.....	Lewiston
Egbert, Arch D., ss.....	Logan
Egbert, Delmar, a-Sp.....	Logan
Egbert, Tennie N., ss.....	Logan
Egbert, Va Lois, c-P.....	Logan
Ellertson, Jesse N., ss.....	Mona
Ellertson, Mamie M., ss.....	Price
Ellis, Oliver J., ma-W.....	Logan
Ellsworth, J. Orval, ss.....	Rexburg, Idaho
Emmett, Simpson, c-P.....	Lovell, Wyo.
Engemann, Margaret, ho-Sp.....	Eureka
England, Della, ho-Sp.....	Logan
Engstrom, Golda, ss.....	Huntsville
Engstrom, Ora, ss.....	Huntsville
Erickson, Wm. Seth, a-W.....	Lewisville, Idaho
Espelin, Lawrence, a-W.....	Orderville
Evans, Hilton B., a-F.....	Springville
Evans, Morrill, a-F.....	Lehi
Evans, Ruel, a-F.....	Lehi
Everton, Edgar, g-S.....	Logan
Ewing, Scott P., g-F.....	Smithfield
Eyring, Camilla, ho-So.....	Pima, Arizona
Fackrell, Lewis, a-W.....	Blackfoot, Idaho
Farnsworth, Esther E., ho-Sp.....	Logan
Farnsworth, Leona, ss.....	Logan
Farnsworth, Myrtle, ss.....	Beaver
Faux, Hazel, ss.....	Moroni
Faylor, Leola F., ho-Sp.....	Logan
Ferney, Russell, ma-W.....	St. Anthony, Idaho
Fife, Arthur, ae-J.....	Cedar City
Fife, Maude Myrle, ho-Sp.....	Lava Hot Springs, Idaho
Fife, Olive La Verne, ho-Sp.....	Lava Hot Springs, Idaho
Fisher, Alice, ho-Sp.....	Smithfield
Fisher, Asael, ss.....	Meadow
Fisher, Flora D., ss.....	Meadow
Fisher, Harold M., ma-W.....	Hooper
Fisher, Ila, ho-F.....	Heber
Fitzgerald, Berton M., ma-S.....	Bingham Canyon
Forrer, Henry H., ma-W.....	Midway
Forsberg, Revere, ma-W.....	Logan
Foulger, Heber C., ss.....	Ogden
Foulger, Mrs. Heber C., ss.....	Ogden
Foutz, Nadine, ho-F.....	Richfield
Fowler, Heber C., ma-F.....	Price
Fox, Reuben M., a-Sp.....	Ogden
Freeman, Ernest, a-So.....	Brigham
Frodsham, George, ma-P.....	Logan
Fulner, Emil, ma-W.....	Sugar Station
Funk, Leroy Conrad, g-So.....	Richmond
Gabrielsen, Lyman, ma-W.....	Logan

Gailey, Evelyn, ho-So.....	Kaysville
Gambles, Ada, ho-Sp.....	Swan Lake, Idaho
Gardner, Anthon Snow, a-J.....	Logan
Gardner, Scott L., ma-W.....	Salt Lake City
Gardner, Reid, a-F.....	Lehi
Gardner, Vernal D., c-F.....	Murray
Garn, Wesley, ae-P.....	Fielding
Garrett, Eleanor, ss.....	Wellsville
Garrett, Leon D., c-So.....	Nephi
Geddes, Grant, ma-Sp.....	Preston, Idaho
Geddes, Lyle S., g-Sp.....	Logan
Geffen, Cecile, ss.....	Bingham Canyon
George, Lockwood, c-Sp.....	Provo
Gerrard, Lowell, a-Sp.....	Murray
Gessel, Royal H., ma-W.....	Logan
Gillies, Thelma, ho-F.....	Beaver
Gilligan, Geo. E., a-F.....	Salt Lake City
Gilligan, Wm., a-J.....	Salt Lake City
Gleason, Herbert L., a-Sp.....	Kaysville
Gledhill, Viola, ss.....	Ogden
Godfrey, Elwen H., ma-W.....	Clarkston
Golding, Homer P., a-W.....	Logan
Goldthorp, Harold C., g-S ss.....	Logan
Goodwin, Anette, ss.....	Logan
Grant, Fred, ae-Sp.....	Salt Lake City
Gray, Frances, ss.....	Perry, Idaho
Greenhalgh, Manila, c-Sp.....	Logan
Griffin, Legrand, a-W.....	Ogden
Griffin, Tennyas, a-W.....	Ogden
Grimaud, Virginia, c-P.....	Logan
Gubler, Helen A., g-So.....	Santa Clara
Gunn, Heber V., ma-Sp.....	Hoytsville
Gunnell, Lorenzo, a-W.....	Howell
Hadley, Thos., ma-W.....	Ogden
Hailstone, J. Leland, c-Sp.....	Logan
Hale, John S., a-F.....	Salt Lake City
Hales, Ethel, ss.....	Park City
Halton, Harry J., a-J.....	Salt Lake City
Hamill, Marguerite, ss.....	Ogden
Hamilton, Beryl, ho-F.....	Murray
Hammar, Everett, g-F.....	Claresholm, Alta, Canada
Hammond, Naomi, c-W.....	Providence
Mancock, Abbie, g-P.....	Blanding
Hanks, Ephraim K., c-W.....	Grover
Hanks, Walter B., a-W.....	Grover
Hansen, Alfred, ae-F.....	Monroe
Hansen, Annie, ho-F.....	Collinston
Hansen, Clarence J., a-Sp.....	Salt Lake City
Hansen, George H., ae-So.....	Richfield
Hansen, Lydia, ho-Sp.....	Tremonton
Hansen, Percy, ae-F.....	Salt Lake City
Hansen, Reuben, a-S.....	Hyrum

Harding, Geo. D., c-Sp.....	Logan
Hardy, Leon, c-Sp.....	Logan
Harker, Mabel, c-F.....	Magrath, Alta, Canada
Harmon, Lawrence B., a-J.....	American Fork
Harmon, Lila, ss.....	Manti
Harmon, Mont, ss.....	Manti
Harris, Barry W., a-W.....	Neola
Harris, Marion, ss.....	Provo
Harvey, Hugh, a-So.....	Heber
Harvey, Leo Paul, a-F.....	Pleasant Grove
Haskins, Clark E., a-W.....	Logan
Hatch, J. Eastman, ss.....	Logan
Hatch, Lorenzo H., c-P.....	Franklin, Idaho
Hatch, Sumner, a-J.....	Heber
Hawkes, Percy, a-W.....	Logan
Hawks, Claud E., ss.....	Preston, Idaho
Haws, Gladys, ho-Sp.....	Logan
Hayball, Edith, ho-J.....	Logan
Heiner, Leland, a-F.....	Morgan
Heiner, Spencer, c-F.....	Morgan
Heinrich, Geo., ss.....	Smithfield
Heldberg, Gustave O., a-Sp.....	Logan
Hendricks, Alonzo J., ma-W.....	Rexburg, Idaho
Hendricks, David, ss.....	Lewiston
Hendricks, Mabel L., ho-F.....	Richmond
Hendricks, Victor B., a-J.....	Lewiston
Herbert, Edna, ss.....	Salina
Herbert, Mary, ss.....	Salina
Hess, Aquilla, ae-ma-Sp.....	Fielding
Heyrend, W. F., ss.....	Logan
Hiatt, Mattie, ho-Ep.....	Payson
Hicken, Elijah M., ae-ma-So.....	Heber
Hickman, Des, a-W.....	Torrey
Hickman, Joseph, ss.....	Logan
Hickman, Othello, g-J.....	Logan
Hickman, Reginald L., a-W.....	Logan
Hill, Edith, ss.....	Franklin, Idaho
Hill, Ethel, g-So.....	Franklin, Idaho
Hill, Almeda, ss.....	Franklin, Idaho
Hill, Chas. S., ss.....	Franklin, Idaho
Hill, Gladys, ss.....	Wellsville
Hill, Wm. R., a-F.....	Springville
Hindley, Eliza, ho-Sp.....	American Fork
Hipwell, Llewellyn, ma-W.....	Ogden
Hobusch, Geo. F., a-Sp.....	Idaho Falls, Idaho
Hobusch, Wilhelmina, ho-J.....	Idaho Falls, Idaho
Hoggan, Edith, ss.....	Rigby, Idaho
Hoggan, Ivie, ss.....	Rigby, Idaho
Hoggan, Wm. Geo., Jr., ae-Sp.....	Manti
Holden, John Edw., c-F.....	Salt Lake City
Holman, Parley L., ss.....	Fountain Green
Holmes, Ellen, ho-So.....	Raymond, Alta, Canada

Holmstead, Alice, ss.....	Lehi
Holmstead, Geo. F., a- ss.....	Lehi
Holt, Glen, c-F.....	Salt Lake City
Holt, Ivan W., c-P.....	Oakley, Idaho
Hopkins, Edgar L., ma-W.....	Logan
Hopkins, Sybil, c-F.....	Logan
Horne, J. Feramorz, a-S.....	Salt Lake City
Horne, Theresa, ho-F.....	Salt Lake City
Horsley, Muriel, g-Sp.....	Brigham
Howard, Louise, ho-So.....	Huntington
Howells, Byron, c-S.....	Oakley, Idaho
Hudman, Howard, c-J.....	Ogden
Huff, Sparrel E., ma-F.....	Dug Spur, Virginia
Huff, Wm. Lee, g-F.....	Tremonton
Huffaker, Vasco, g-So.....	Tooele
Hughes, Jonathan M., ae-ma-J.....	Farmington
Hughes, Louie, ho-So.....	Mendon
Hughes, Thomas, g-J.....	Farmington
Hugie, Wm. C., ma-Sp.....	Logan
Hulet, Hope, ss.....	Peterson
Hulet, Nephi J., a-Sp.....	Peterson
Humphreys, Asia, ss.....	Logan
Hunsaker, Ara, ho-F.....	Honeyville
Huppi, John, g-Sp.....	St. Gallen, Switzerland
Hurd, Eliza, ho-F.....	Salt Lake City
Hurst, Ada R., g-Sp.....	Blanding
Hurst, Maya, ho-Sp.....	Logan
Hutchings, Mae W., g-Sp.....	American Fork
Hyde, Beth, ho-So.....	Logan
Hyde, Lyle, ho-So ss.....	Logan
Hyde, R. Homer, ss.....	Hyde Park
Hyde, Wendell, ae-ma-Sp.....	Logan
Isaacson, May, ss.....	Brigham
Israelson, Victor E., a-Sp.....	Hyrum
Ivie, Lillie, ss.....	Salina
Ivins, Heber G., a-S.....	Salt Lake City
Jackson, Dorrell P., a-S.....	Lewiston
Jacobs, Susie, ss.....	Ogden
Jacobson, Lawrence, ma-W.....	Logan
Jarvis, Alice Y., ho-Sp.....	St. George
Jarvis, Lester A., a-F.....	Salt Lake City
Jarvis, Orin W., a-S.....	St. George
Janson, John Alma, ae-Sp.....	Gunnison
Jenkins, Lorna, ss.....	Ogden
Jennings, Alma, a-F.....	Levan
Jensen, Ida O., ho-F.....	Idaho Falls, Idaho
Jensen, Irving, a-J.....	Hyrum
Jensen, Lillian, ss.....	Mendon
Jensen, Naomi, ho-Sp.....	Providence
Jensen, Pearl L., ss.....	Hyrum
Jeppesen, Evelyn, ho-J.....	Geneva
Jeppesen, Hazel, ho-Sp.....	Geneva

Jeppesen, Robert, a-So.....	Brigham
Jerman, Ira Donald, ae-F.....	Santaquin
Jerman, Reid, ae-J.....	Santaquin
Johnson, Carl Brigham, g-S.....	Richmond
Johnson, Floyd, ss.....	Preston, Idaho
Johnson, Hyrum E., ss.....	Pleasant Grove
Johnson, Francis A., ae-ma-Sp.....	Hooper
Johnson, Lydia, ho-Sp.....	Springville
Johnson, Naomi M., g-Sp.....	Logan
Johnson, Wesley B., ma-W.....	Richmond
Johnson, Wm. Owen, g-Sp.....	Santaquin
Jones, Effie, ho-J.....	Cedar City
Jones, Eliza Annie, ho-S ss.....	Newton
Jones, Eloise, ho-So.....	Salt Lake City
Jones, Jos. Pearl, a-J.....	Wellsville
Jones, John W., ss.....	Ogden
Jones, Leland V., c-F.....	Ogden
Jones, May, ss.....	Wellsville
Jones, Wallace, c-P.....	Heber
Jonsson, Carl Wm., ae-G.....	Logan
Jonsson, Hilma, ss.....	Logan
Jordan, Fannie C., ss.....	Logan
Jorgensen, Osmond O., c-F.....	Logan
Judd, Lyle P., c-J.....	Salt Lake City
Kapple, Chas. Dixon, g-S.....	Payson
Kearl, Chase, a-Sp.....	Laketown
Kearl, Hazel, ho-Sp.....	Provo
Kemp, Wm. August, c-W.....	Arimo, Idaho
Kent, Edward Chas., a-So.....	Salt Lake City
Kerr, Vie, ho-So, ss.....	Wellsville
Khan, Ameen, a-F.....	Persia
Kidgell, Fred C., Jr., c-Sp.....	Logan
Kidgell, S. Lilly, ho-F.....	Logan
Killpack, Maralda, g-Sp.....	Ferron
Killpack, McLloyd, a-Sp.....	Ferron
King, Eliza L., ss.....	Logan
King, Geo. Edw., g-J.....	Garland
Kirby, Frank J., ma-J.....	Sugar City, Idaho
Kirkbride, Jas. Wm., g-Sp.....	Smithfield
Kirkham, Ebenezer J., a-J.....	Lehi
Kirkham, Ethel W., ho-Sp.....	Idaho Falls, Idaho
Kirkham, J. Arno, a-J.....	Lehi
Kirkham, Zelda, ho-F.....	Lehi
Kjar, Edith, ho-F.....	Manti
Kloepfer, Rachel, ss.....	Logan
Knudson, Irma, ho-F.....	Brigham
Knudson, John Chester, c-So.....	Brigham
Knudson, Marjorie, ho-F.....	Brigham
Koepp, Clara M., ss.....	Ogden
Koepp, Myrtle, g-F.....	Ogden
Kremer, Clara M., g-S.....	Logan
Krumperman, Leona M., ho-F.....	Ogden
Kunz, Lottie H., ss.....	Logan
Kunz, Hyrum S., ss.....	Bern, Idaho
Kunz, Lucile, ss.....	Logan

Lacy, Frank M., a-W.....	Rupert, Idaho
Larsen, Andrew O., a-G.....	Logan
Larsen, Barbara, ho-F.....	Brigham
Larsen, Edgar N., ss.....	Manti
Larsen, Ernest O., ae-So.....	Santaquin
Larsen, Estella, ho-J.....	Logan
Larsen, Evan C., ma-W.....	Ephraim
Larsen, Floyd C., a-W.....	Logan
Larsen, Hazel, ho-Sp.....	Logan
Larsen, Herbert, c-P.....	Logan
Larsen, Mabel, ho-F.....	Salt Lake City
Larsen, Naomi, ho-So.....	Logan
Larsen, Nellie, ss.....	Hyrum
Larsen, Olga, ho-Sp.....	Smithfield
Larsen, Parley, g-Sp.....	Logan
Larsen, R. V., ss.....	Smithfield
Larsen, Victor, g-S.....	Logan
Law, Minerva, ss.....	Logan
Leatham, Maggie, ss.....	Wellsville
Lee, Bertil H., ae-So.....	Hoytsville
Lee, Eli F., c-G.....	Brigham
Lee, Florence, ss.....	Brigham
Lee, Olivia, ho-F.....	Brigham
Leigh, Carrie, ho-F.....	Cedar City
Leishman, Marvilla, ss.....	Wellsville
Leonard, Flora, ho-Sp.....	Huntington
Lewis, Grover E., a-S.....	Malad, Idaho
Lewis, Myrl, a-Sp.....	Marion
Lind, Elmer, ss.....	Vernal
Lindquist, Ariel, g-J.....	Logan
Lindquist, Eva A., ho-So.....	Salt Lake City
Lindquist, Verna, ho-Sp.....	Logan
Lindsay, Ora, a-W.....	Blackfoot, Idaho
Linford, Jas. B., g-S.....	Logan
Linford, Wm. B., ae-So.....	Logan
Lovell, Gene, ho-F.....	Oak City
Loosle, Byron, ma-W.....	Clarkston
Low, Morris D., a-S.....	Paris, Idaho
Lowe, Erma, ho-Sp.....	Franklin, Idaho
Lowe, Jewel, ss.....	Franklin, Idaho
Lowe, John V., ma-W.....	Franklin, Idaho
Lowe, Joe, ae-Sp.....	Salt Lake City
Lowry, Ivy, ho-F.....	Ferron
Lund, Yeppa, a-G.....	Logan
Lundberg, Wilford W., ma-W.....	Logan
Lunt, Wilson N., ae-So.....	Cedar City
MacLean, Wm., ae-Sp.....	Salt Lake City
McAlister, Irvine L., So.....	Logan
McAlister, Wallace S., ss.....	Logan
McBeth, John S., a-Sp.....	Payson
McBride, Claude D., a-So.....	Fairview, Arizona
McBride, Cora G., ho-J, ss.....	American Fork

McCulloch, Ella, c-So.....	Logan
McDonald, Inez, c-Sp.....	Provo
Mc. Ewen, Ella, ss.....	Trenton
McFarland, Roy, ma-W.....	Ogden
McGinnis, Frank, a-W.....	Midway
McGinnis, Joe, ma-W.....	Dawson, Neb.
McKay, Morgan P., a-F.....	Ogden
McKee, Mira, ss.....	Huntington
McKissick, Ethel, c-Sp.....	Loveland, Colorado
McMullin, Thos. Heber, a-So.....	Heber
Machin, Percy, ma-W.....	Logan
Madsen, A. Barton, ma-W.....	Boneta
Mageleby, Rulon T., a-F.....	Monroe
Mahoney, W. Leroy, a-Sp.....	Heber
Malik, Ghulam M., a-J.....	India
Mason, La Von, ho-F.....	Willard
Matthews, Ella, ho-F.....	Oakley, Idaho
Mathews, Olive, c-F.....	Marysville
Maughan, Armenia, ho-Sp.....	Logan
Maughan, Ada, ss.....	Logan
Maughan, Edna, ss.....	Wellsville
Maughan, Eldora J., ho-Sp.....	Logan
Maughan, Lavinia, ss.....	Logan
Maughan, Rew H., a-Sp.....	Logan
Maughan, Russell Lowell, a-W.....	Logan
Mayers, Alton R., a-F.....	Salt Lake City
Mayer, Clifford A., ae.....	Bingham Canyon
Mecham, Lucian M. Jr., a-F.....	Douglas, Arizona
Meeks, Heber, a-Sp.....	Kanab
Meikle, Marguerite, ho-Sp.....	Smithfield
Meldrum, Vernal, ae-Sp.....	Provo
Memmott, Cleon, a-So.....	Nephi
Merrill, Don C., g-J.....	Richmond
Merrill, Arthur L., c-W.....	Payson
Merrill, Edna E., ho-Sp.....	Logan
Merrill, Effie E., ho-Sp.....	Logan
Merrill, Elwin, ae-W.....	Payson
Merrill, Madison W., ss.....	Preston, Idaho
Merrill, Ortencia H., ho-So.....	Richmond
Merrill, Veda, ss.....	Richmond
Merrill, Vera S., ho-S.....	Richmond
Merrill, Wilford J., c-So.....	Richmond
Meyrick, Wm. Evan, ma-W.....	Logan
Mickelsen, Anton, c-F.....	Clearfield
Mikkelsen, Hans, g-Sp.....	Hyrum
Miller, Hyrum J., ae-F.....	Farmington
Mills, Clarence, a-W.....	Payson
Mills, John Leroy, a-F.....	Evanston, Wyo.
Millett, Wm. H., a-F.....	Mesa, Arizona
Mitchell, Leland R., ma-J.....	American Fork
Moench, Howard C., ma-P.....	Logan
Moench, Louis F., g-J.....	Logan

Mohr, Andrew J., a-Sp, ss.....	Logan
Mohr, Mabel, c-P.....	Logan
Moncur, Alphonso, a-So.....	Lovell, Wyo.
Monson, Chas. Horal, c-So.....	Richmond
Moody, Edgar R., a-F.....	Deseret
Montgomery, Bess L., ss.....	Boise, Idaho
Morgan, Samuel, a-J.....	Logan
Morrell, Thos. Heber, a-J.....	Logan
Morris, Arthur J., a-So.....	Sandy
Morris, Melvin, c-F.....	Rockland, Idaho
Morrison, Bessie, ho-F.....	Brigham
Mott, Gertrude E., ho-Sp.....	Santaquin
Muir, C. Gertrude, ho-F, ss.....	Logan
Mulliner, Dellas, a-W.....	Logan
Munk, LaRue, ho-F.....	Manti
Munsee, Vern, ma-W.....	Shelley
Murray, Elva, ss.....	Wellsville
Murray, Wilford B., g-Sp.....	Wellsville
Munoz, R. Rafael, a-S.....	La Paz, Bolivia, S. America
Nebeker, A. Hulme, g-So.....	Logan
Nebeker, Lucille, ho-F.....	Salt Lake City
Neddo, Ella, ss.....	Providence
Neeley, Vernon F., c-F.....	Preston, Idaho
Nelson, Cecelia, ss.....	Logan
Nelson, D. H., ss.....	Mink Creek, Idaho
Nelson, Edgar E., ae-ma-Sp.....	Kimball, Alta, Canada
Nelson, Hilton, a-P.....	Redmond
Nelson, Lloyd, ma-F.....	Ferron
Nelson, Myra, c-So.....	Logan
Nelson, Peter, g-So, ss.....	Mink Creek, Idaho
Nelson, Stanley C., a-F.....	Ferron
Nelson, Vera, ho-F.....	Logan
Nibley, Florence, g-Sp.....	Logan
Nibley, Margaret, g-Sp.....	Logan
Nichols, Bervard, g-G.....	Brigham
Nichols, DeLore, a-S.....	Brigham
Nielsen, Beatrice M., ho-Sp.....	Logan
Nielsen, David O., ma-W.....	Hyrum
Nielsen, Eva Joy, ho-So.....	Ephraim
Nielsen, Glenn Z., ma-o.....	Axtell
Nielsen, Grace, ho-Sp.....	Hyrum
Nielsen, Gwen, ho-So.....	Preston, Idaho
Nielsen, La Verne M., ss.....	Afton, Wyo.
Nielsen, Myrtle, g-Sp.....	Logan
Nielsen, Neils P., c-Sp.....	Millville
Nielsen, Pearl, ss.....	Logan
Nielsen, Peter A., ss.....	Afton, Wyo.
Nielsen, Ruby, ho-Sp.....	Preston, Idaho
Nielsen, Wyman I., ae-W.....	Salt Lake City
Nisson, Clarence W., c-S-ss.....	Logan
Nix, Clarice, g-P.....	Blanding
Norman, Legrand, ae-ma-Sp.....	Logan

Norr, Vernon M., c-Sp.....	Logan
North, Lola, ss.....	Salt Lake City
Nowacki, Joseph, c-W.....	Mackay, Idaho
Oberhansly, Emma, ss.....	Payson
Oberhansly, Minnie, ss.....	Payson
Olesen, Einar B., c-P.....	Logan
Olson, Evalyn, ho-Sp.....	Brigham
Olson, Harold R., g-So.....	Brigham
Olson, Hilda, ho-Sp, ss.....	Hyrum
Olson, Jennie R., ho-Sp.....	Bridge, Idaho
Olson, Leander, a-So.....	Moroni
Olson, Nels I., a-P.....	Ephraim
Olson, Sarah, ho-Sp.....	Logan
Olson, Tenn N., ho-Sp.....	Logan
Olson, Virginia, ho-Sp.....	Lewiston
Osmond, Ivie Fern, c-P.....	Logan
Osmond, Ruby H., ho-So.....	Logan
Ostler, Della, ho-F.....	Salt Lake City
Ostlund, Lillian, ss.....	Logan
Otte, Jos. E., a-S.....	Logan
Pace, John M., a-F.....	Price
Packer, Jos. A., g-P.....	Fielding
Page, Willis, c-F.....	Preston, Idaho
Palmer, Asael E., a-S.....	Raymond, Alta, Canada
Palmer, Maydell C., ho-G.....	Raymond, Alta, Canada
Papworth, Steven M., a-Sp.....	Afton, Wyo.
Park, Nettie, ho-F.....	Tooele
Parker, Adelia, ho-S, ss.....	Paris, Idaho
Parker, Grant, ae-W.....	Hooper
Speierman, Chas. W., c-P.....	Logan
Parkes, Ida, ho-Sp.....	Nephi
Parkes, Wm. S., ma-S.....	Nephi
Parkinson, E. Benson, g-G.....	Logan
Parkinson, Jas. A., ss.....	Logan
Parkinson, Jas. A., ss.....	Grantsville
Parkinson, Karma, ho-So-ss.....	Logan
Parkinson, Marie, ss.....	Logan
Parry, John Waldo, c-So.....	Elsinore
Parry, Martha P., ss.....	Logan
Parsons, Ruby E., ho-S-ss.....	Salt Lake City
Passey, Leon W., g-Sp.....	Logan
Pedersen, Peter A. C., g-J.....	Bear River City
Pedersen, Reuben, c-F.....	Logan
Peebles, Ellsworth, ma-W.....	Kaysville
Pehrson, Nettie, c-P.....	Logan
Pendleton, Warren, ss.....	Parowan
Perkins, Martin L., a-S, ss.....	Dayton, Idaho
Perrine, Stella L., ho-F.....	Twin Falls, Idaho
Perry, Eurene, ss.....	Rigby, Idaho
Peterson, Anthon, a-S.....	Logan
Peterson, Carl W., a-So.....	Salt Lake City
Peterson, Dewey, ma-W.....	Logan

Peterson, Edith E., c-Sp.....	Preston, Idaho
Peterson, Harold, g-S.....	Bloomington, Idaho
Peterson, La Voyle, ho-J.....	Logan
Peterson, Laurene, ss.....	Hyrum
Peterson, Leonard, a-W.....	Ogden
Petrson, Lydia, ss.....	St. Charles, Idaho
Peterson, Mabel, ho-Sp.....	Logan
Peterson, Parley A., a-W.....	Newton
Peterson, Reginald, a-W.....	Richfield
Peterson, Thos. S., ae-W.....	Preston, Idaho
Peterson, Victor E., a-W.....	Park City
Peterson, Violet A., ho-S, ss.....	Smithfield
Peterson, Wm. O., g-So.....	Logan
Phillips, Jas. W., ss.....	Sugar City, Idaho
Phillips, Jane P., ss.....	Lehi
Phillips, John Dee, a-W.....	Idaho Falls, Idaho
Picot, Eda E., ho-Sp.....	Logan
Pixton, Robert C., a-J.....	Murray
Pond, Lillian H., ho-F.....	Salt Lake City
Pond, Preston, ss.....	Lewiston
Porter, Alberta S., ho-J, ss.....	Logan
Porter, Ina, ho-J.....	Franklin, Idaho
Porter, Leslie, c-W.....	Mt. Pleasant
Porter, Vivian E., ho-G.....	Logan
Poulter, Lenora, ss.....	Logan
Poulter, Wm. Irvine, a-So.....	Ogden
Poulson, Oleta, ho-So.....	Brigham
Powell, Morrell, a-S.....	Coalville
Preston, Claytor P., g-So.....	Logan
Price, Chas., a-So.....	Beaver
Price, Emily, ss.....	Beaver
Price, Josiah D., a-F.....	Ogden
Price, Lew Mar, a-S.....	Provo
Price, Victor, ma-Sp.....	Beaver
Probst, Nephi, ma-W.....	Midway
Prouse, Leland, c-F.....	Salt Lake City
Pulley, E. P., ss.....	Logan
Purcell, Roy L., g-F.....	Malaela, Samoa
Purdy, Bessie, ss.....	Ogden
Pyper, Allan G., a-F.....	Salt Lake City
Rallison, Robt. Leo., c-W.....	Preston, Idaho
Ralph, Leonard T., c-S.....	Logan
Ramsperger, Herman C., a-So.....	Logan
Rawlins, Fern, ss.....	Lewiston
Rawlins, Reuel L., ae-Sp.....	Lewiston
Raymond, Geo., ma-W.....	Smithfield
Redford, Ruby L., ho-Sp.....	Logan
Reed, Joseph, a-Sp, ss.....	Salt Lake City
Rees, J. Lavern, a-So.....	Benson
Reeves, Wm., c-F.....	Evanston, Wyo.
Reid, Andrew, a-W.....	Mendon
Reynolds, Sidney S., g-Sp.....	Logan

Rice, Laurn R., a-F.....	Metropolis, Nevada
Rich, Emeline G., ss.....	Logan
Rich, Lettie, ss.....	Logan
Richards, Bert L., g-G.....	Logan
Richards, E. Foss, Jr., a-S.....	Farmington
Richards, Wm. Denton, c-So.....	Carey, Idaho
Richardson, Belle, c-Sp.....	Ferron
Richardson, Horace, g-Sp.....	Logan
Richardson, Ivie, ho-G, ss.....	Logan
Richardson, Jacob Z., ss.....	Logan
Richardson, L. A., ss.....	Pleasant Grove
Richardson, Pearl, ho-Sp.....	Ferron
Ricks, Julia, ho-Sp.....	Logan
Ridd, May, ho-Sp.....	Salt Lake City
Riley, Mervyn S., c-F, ss.....	Logan
Riter, Levi R., a-Sp.....	Logan
Roberts, Samuel E., a-Sp.....	Afton, Wyo.
Robbins, Myron W., ae-W.....	Snowville
Robinson, David Earle, g-G.....	Logan
Robinson, Eugene W., a-F.....	Salt Lake City
Robinson, Eunice, ho-S.....	Salt Lake City
Robinson, Reynold F., a-Sp.....	Freedom, Wyo.
Rock, Lavinia, ss.....	Willard
Rogers, Bertha, g-P.....	Blanding
Rogers, Lucile P., g-So.....	Preston, Idaho
Rosengreen, Enid J., ho-Sp.....	Logan
Rosengreen, Ruby L., c-P.....	Logan
Rosengreen, Ruth, ho-J-ss.....	Logan
Roskelley, Marriner, ss.....	Smithfield
Roskelley, Wm. L., ss.....	Smithfield
Roundy, Leone, ss.....	Benson
Rowberry, Lillian, ss.....	Grantsville
Rowe, Clara S., g-Sp.....	Logan
Rowe, Louis H., c-So.....	Salt Lake City
Rowley, Margaret, c-P.....	Logan
Roylance, Jesse, c-So.....	Springville
Russell, Geo. E., ae-F.....	Springville
Salzner, Odetta, ho-So, ss.....	Salt Lake City
Salisbury, Mrs. Jos. G., ss.....	Logan
Sargent, Wilford N., ae-ma-F.....	Hoytsville
Savage, Willis, a-F.....	Hyrum
Saxer, Beatrice, g-Sp.....	Logan
Scholes, Walter A., a-W.....	Logan
Schow, Randall, a-So.....	Lehi
Scorp, Stena, ss.....	Salina
Sealy, Leon M., c-P.....	Thomaston, Alabama
Secrest, Willard, ma-W.....	Logan
Sells, Albert E., ss.....	Nephi
Sevy, Pearl, ho-S, ss.....	Richfield
Sharp, Ivor, g-S.....	Vernon
Sharp, Leo B., a-S.....	Salt Lake City
Shaw, Bessie H., ss.....	Richmond

Shepherd, Bertha, ss.....	Murray
Shipley, Wm. B., ss.....	Paradise
Shirazi, Mirza Ali A., a-So.....	Sharz, Persia
Shomaker, Dolores, ho-F.....	Manti
Shuldborg, Leroy, ma-Sp.....	Preston, Idaho
Shumway, Willie J., ma-P.....	Lovell, Wyo.
Shurtliff, Esther, ss.....	Ogden
Silvers, Ray J., a-Sp.....	Salt Lake City
Singleton, Cecil, g-F.....	Ferron
Sjostrom, Jos. Emil, c-S.....	Logan
Skanchy, Fritz, g-Sp.....	Logan
Skanchy, Verna, ho-Sp.....	Logan
Skidmore, Elsie, ss.....	Richmond
Skidmore, Wm. L., ss.....	Preston, Idaho
Skinner, Clawson, a-F.....	Nounan, Idaho
Slaugh, Forest S., a-J.....	Vernal
Smith, Abbie, ss.....	Logan
Smith, Albert E., a-Sp.....	Logan
Smith, Arthur B., a-So.....	Logan
Smith, Calvin, ae-ma-Sp.....	Logan
Smith, Clarence E., ss.....	Riverside
Smith, David W., ss.....	Salt Lake City
Smith, Douglas, a-So.....	Heber
Smith, Edwin W., a-F.....	Salt Lake City
Smith, Emma, c-P.....	Logan
Smith, Gladys, c-Sp.....	Logan
Smith, Grace, ho-Sp.....	Salt Lake City
Smith, H. Lawrence, ss.....	Logan
Smith, Ione, c-P.....	Logan
Smith, Irene, ho-So.....	Logan
Smith, James, ma-W.....	Logan
Smith, John E., g-So.....	Salt Lake City
Smith, Laura V., c-Sp.....	Salt Lake City
Smith, LaVon G., ss.....	Clarkston
Smith, Leona, ss.....	Logan
Smith, Lewis Calder, a-S-ss.....	Logan
Smith, Margaret Iva, ho-So.....	Logan
Smith, Marion, ho-J.....	Logan
Smith, Marion L., ho-Sp.....	Logan
Smith, Minnie J., ho-Sp.....	Manassa, Colorado
Smith, Olena, ho-So.....	Logan
Smith, Orita, ho-S, ss.....	Logan
Smith, Percy E., g-F.....	Logan
Smith, Ralph A., g-So.....	Logan
Smith, Ray F., a-F.....	Murray
Smith, Ray J., a-S.....	Logan
Smith, Ruby, ss.....	Salt Lake City
Smith, Willis, ss.....	Ogden
Smith, Winnifred, ho-F, ss.....	Beaver
Snow, Joseph H., ss.....	Kingston
Snow, Wm. J., a-F.....	Bicknell
Solomon, Arthur M., a-So.....	Salt Lake City

Solomon, Leah, ho-So.....	Salt Lake City
Sorensen, Alma N., g-G.....	Logan
Sorensen, Claud, a-W.....	Mendon
Sorensen, Emma B., ho-J.....	Mendon
Sorensen, Howard, ma-W.....	Ogden
Sorensen, Lionel W., g-So.....	Gunnison
Sorensen, Lois W., ss.....	Logan
Spande, Afton B., c-P.....	Logan
Spande, Dorothy, c-P.....	Logan
Spande, Mabel, ss.....	Logan
Spande, Sybil E., ss.....	Logan
Spencer, Bessie, ho-So.....	Kanab
Spencer, Chester V., c-P.....	Logan
Spencer, Lawrence P., a-Sp.....	Salt Lake City
Spencer, Sidney, a-Sp.....	Salt Lake City
Spongberg, Virgil H., ae-F.....	Preston, Idaho
Squires, Chester B., c-Sp.....	Logan
Squires, Geo. W., c-Sp.....	Logan
Squires, Katherine, ss.....	Ogden
Squires, Serge, ma-P.....	Logan
Standing, Russell J., ma-F.....	Brigham
Staheli, Laura, ss.....	Enterprise
Staheli, W. C., ss.....	Enterprise
Stanford, J. Sedley, a-S.....	Carey, Idaho
Staten, Wm. P., ae-F.....	Salt Lake City
Steele, Alma B., ae-Sp.....	American Fork
Steele, Harold, a-W.....	Delta
Steele, Laura, ho-F.....	Idaho Falls, Idaho
Steele, Ray, ma-Sp.....	Cowley, Wyo.
Steers, Iva, ss.....	Ogden
Stender, Richard A., ae-W.....	Logan
Stephens, Esther, ho-Sp.....	Salt Lake City
Stephens, Jesse M., ma-Sp.....	Ogden
Stephens, Naomi, ss.....	Logan
Stevens, Daniel W., g-F.....	Fillmore
Stewart, Bessie, ho-Sp.....	Logan
Stewart, Thelma, ho-So, ss.....	Logan
Stiefel, Maurice, Jr., ae-Sp.....	Salt Lake City
Stock, Sidney R., g-So.....	Fish Haven, Idaho
Stock, Wesley K., ma-W.....	Fish Haven, Idaho
Stoddard, Eliza, ss.....	Richmond
Stoddard, Margaret, ho-F.....	Baker City, Oregon
Stone, Philip B., ae-Sp.....	Murray
Stoney, Clyde, c-P.....	Logan
Stott, C. O., ss.....	Meadow
Stratford, Clyde, g-S.....	Pocatello, Idaho
Stringham, Benj. B., ma-W.....	Logan
Sutton, Cyril S., c-F.....	Paris, Idaho
Sutton, Wm. Hugh, c-So.....	Paris, Idaho
Tanner, Vella, ss.....	Salt Lake City
Tanner, Wm. J., a-F.....	Whitney, Idaho
Taggart, Theron, a-F.....	Morgan

Tate, Leland S., ma-Sp.....	Tooele
Tate, Thos. T., a-W.....	Tooele
Taylor, Albert B., a-F.....	Lehi
Taylor, A. J., ss.....	Willard
Taylor, Jennie B., ho-F.....	Lehi
Telford, Lafayette, a-Sp.....	Lewiston
Telford, Sterlin, a-F.....	Lewiston
Thain, Geo. Wendell, c-Sp.....	Logan
Thatcher, Florence, ss.....	Logan
Thatcher, Franklin D., ss.....	Logan
Thatcher, Helen, ho-So.....	Logan
Thatcher, Patience, ss.....	Logan
Thayne, Wm. Jas., a-J.....	Yost
Theurer, Pearl, ho-F.....	Logan
Thomas, Alvin J., g-So.....	Samaria, Idaho
Thomas, Elizabeth, ss.....	Plain City
Thomas, Luella M., ho-F.....	Plain City
Thompson, Evelyn, ss.....	Richmond
Thorne, Gerald, a-So.....	Jensen
Thornton, Jas. W., a-S, ss.....	New Castle
Thorpe, Alice B., c-Sp.....	Logan
Thorpe, Oneata, c-P.....	Logan
Thorpe, Yale C., a-F.....	Ephraim
Titensor, Roscoe, a-W.....	Bedford, Wyo.
Toombs, Wm., a-W.....	Logan
Tracey, E. Erma, ho-Sp.....	Ogden
Trimble, Evangeline, ss.....	Salix, Iowa
Tuckfield, Maud, ho-So.....	Salt Lake City
Tueller, Sarah, ho-Sp.....	Smithfield
Tuft, Leland, a-J.....	Monroe
Turman, Dale, a-So.....	Hamer, Idaho
Turner, Lee C., c-W.....	Logan
Turner, Wm. N., a-Sp.....	Salt Lake City
Turpin, Harold W., a-G.....	Done, C. P., South Africa
Turpin, Willard B., ma-W.....	West Jordan
Tuttle, Lucile, ss.....	Manti
Tuttle, Ray, a-F.....	Spanish Fork
Twitchell, Alvin G., g-S.....	Beaver
Tyson, Louie E., ss.....	Logan
Ure, Katherine, g-F.....	Salt Lake City
Urie, Earl, a-Sp.....	Cedar City
Vance, James Darnall, a-F.....	American Fork
Van Leuven, E. Perry, ma-G.....	Springville
Van Orden, Ottis, a-Sp.....	Lewiston
Van Wagoner, Earl, c-So.....	Provo
Vernon, Aldyth, g-P.....	Logan
Vernon, Lais, g-P.....	Logan
Viehweg, John E., ma-W.....	Clifton
Voegler, Elwin, a-Sp.....	Salt Lake City
Von Niederhausern, Fred, ma-W.....	Logan
Voorhees, Hillard L., ae-So.....	Manti
Wade, Josephine, ss.....	Ogden

Wagstaff, Mabel, ss.....	Murray
Walker, Vance D., g-Sp, ss.....	Mendon
Wallace, Edith, ho-So.....	Salt Lake City
Wallgren, Arthur, a-F.....	Mink Creek, Idaho
Walters, Ann, ss.....	Wellsville
Walton, Curtis, ma-Sp.....	Coalville
Ward, Geo. A., c-So.....	Willard
Warnick, Effie, ss.....	Pleasant Grove
Watkins, Leland, c-P.....	Logan
Watson, Ella T., g-Sp.....	Logan
Watson, Jas. M., ae-F.....	Magrath, Alta, Canada
Wattis, Mary J., ho-F.....	Ogden
Wayman, Irene, ho-Sp.....	Logan
Wayman, Wallace, a-F.....	Logan
Weaver, Basil C., ae-W.....	Layton
Webb, Effie, ss.....	St. George
Webb, Jos. E., c-So.....	Logan
Webster, Kenneth S., a-W.....	Logan
Webster, Lola M., ho-S.....	Logan
Webster, Moselle, ho-Sp.....	Franklin, Idaho
Welling, Clifford, ma-W.....	Fielding
Wells, Geneva, ho-F.....	Salt Lake City
West, Rulon, ma-W.....	Hoytsville
Weston, Lenora, ho-Sp.....	Laketown
White, Azmon D., ae-So.....	Beaver
White, Edna, ho-So.....	Beaver
White, Hortense, ss.....	Beaver
White, Jas. O., c-J.....	Willard
White, Lucy E., ho-Sp.....	Willard
White, Luella, ho-So.....	Beaver
Whitesides, Emil M., g-Sp.....	Layton
Whitmore, Jas. M., a-F.....	Midvale
Whitney, Byron, ae-Sp.....	Logan
Widtsoe, Anna G., ss.....	Logan
Wight, Lillian, ho-S, ss.....	Brigham
Wight, Zillah, ho-So.....	Brigham
Wilcox, Marsh, ma-W.....	Logan
Wilkinson, Geo. M., c-Sp.....	Logan
Wilkinson, Margaret, ss.....	Logan
Willardson, Peter, a-P.....	Redmond
Williams, Carl L., a-W.....	Blackfoot, Idaho
Williams, Florence C., ss.....	Logan
Williams, Howell M., a-Sp.....	Logan
Williams, Mabel, g-F.....	Ogden
Williams, Vivian R., ae-ma-Sp.....	Farmington
Willie, Allen L., a-S-ss.....	Mendon
Wilson, Alma L., a-G.....	Logan
Wilson, Geo. N., ma-W.....	Jackson, Wyo.
Wilson, Jacob R., a-W.....	Hooper
Wilson, Joy, a-W.....	Jackson, Wyo.
Wilson, Vanez, ae-So.....	Logan
Winger, Clara, c-P.....	Salt Lake City

Winger, Hilder, c-P.....	Maddock, N. D.
Winn, Kenneth, g-So.....	Nephi
Wittwer, John H., a-S.....	Santa Clara
Wittwer, Mrs. J. H., ho-Sp.....	St. George
Wloter, Albertus, ae-F.....	Yost
Wolter, Tom C., ma-W.....	Yost
Wood, Fred, ss.....	Park City
Woodbury, Raymond, a-W.....	Burley, Idaho
Woodhouse, Jesse M., ae-J.....	Idaho Falls, Idaho
Woodland, Clifford, ma-W.....	Brigham
Woodruff, Douglas O., a-F.....	Salt Lake City
Woodside, Jean R., ss.....	Logan
Woodside, T. Clyde, c-F.....	Logan
Woodward, Grant, g-Sp.....	Franklin, Idaho
Woolley, Olive, ho-J.....	Ogden
Worley, Clyde, a-Sp.....	Logan
Wright, Coulsen C., ae-Sp.....	Bennington, Idaho
Wright, H. Pratt, a-F.....	Hinckley
Wright, John Wm., a-S.....	Hinckley
Wright, Nona Lane, c-So.....	Bennington, Idaho
Wright, Preston Lee, a-F.....	Brigham
Wrigley, Robert L., a-G.....	Logan
Wyatt, Caroline, ho-J.....	Wellsville
Wyler, Henry Jr., a-W.....	Payson
Young, Brigham R., ma-W.....	Driggs, Idaho
Young, Edwin R., a-W.....	Salt Lake City
Young, Florence, ss.....	Ogden
Young, Freda A., g-J.....	Park City
Young, Myrtle, ss.....	Ogden
Young, Nelson A., g-So.....	Salt Lake City
Young, Nina, ho-Sp.....	Park City
Young, Stella, ho-F.....	Brigham
Young, Vernon, a-F.....	Monticello
Zbinden, Rosalina, c-P.....	Logan

	Agriculture (Men)	Agt. Engr. (Men)	Commerce (Men)	Commerce (Women)	Gen. Science (Men)	Gen. Science (Women)	Home Econ. (Women)	Mech. Arts (Men)	TOTAL	GRAND TOTAL
COLLEGE:										
Graduates.....	12	1	1	1	7	1	5	1	29	
Seniors.....	29	6	6	---	10	2	14	3	70	
Juniors.....	21	6	6	1	11	3	18	2	68	
Sophomores	29	11	16	3	22	10	37	2	130	
Freshmen.....	62	16	19	5	14	10	51	6	183	
Specials	50	20	16	5	19	13	56	8	187	
	203	60	64	15	83	39	181	22		667
VOCATIONAL:										
Practical.....	6	1	13	16	3	7	---	4	50	
Specials	3	5	2	9	---	---	24	2	45	
Winter Course.....	56	12	8	2	---	---	3	71	152	
	65	18	23	27	3	7	27	77		247
Summer School 1916.....										256
Correspondence Department.....										613
										1783
Less names repeated.....										82
Net Total.....										1701
FARMERS' CONVENTIONS AND HOUSEKEEPERS' CONFERENCES										
Conventions:										
Logan.....										250
Ogden.....										116
Salina.....										126
Cedar City.....										121
Housekeepers' Conferences:										
Logan.....										130
Ogden.....										35
Salina.....										125
Cedar City.....										151
Net Total.....										1052

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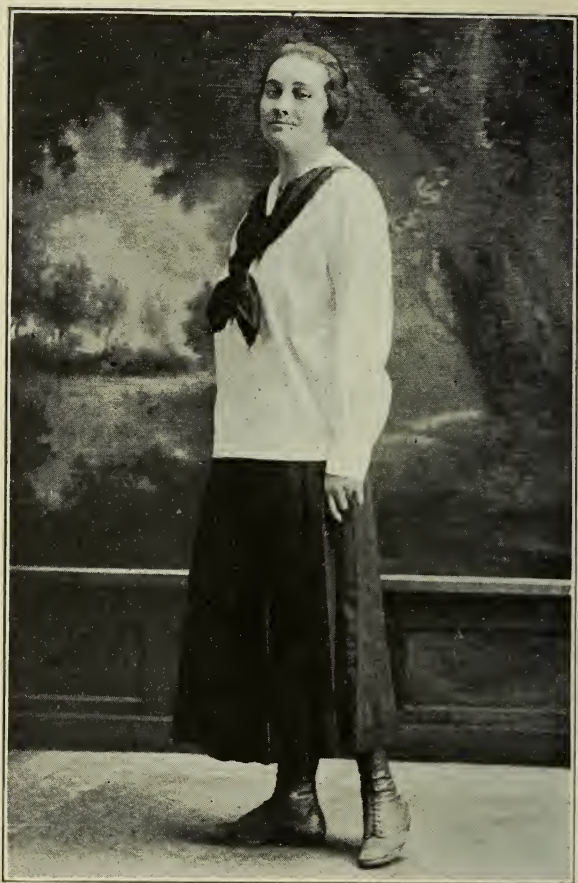
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At a meeting of the Board of Trustees of the Utah Agricultural College, held May 14th of the present year, it was decided "that it be the sense and desire of the Board that a uniform costume or dress for women students be adopted and that it be recommended that the women students of the Institution be encouraged to wear the same."

In conformity with the wish of the Board a committee was appointed to work out the details of a costume that would meet the present need for greater economy in dress, combine simplicity with good taste, and be generally becoming to every girl



and within the income of all. After careful consideration the Committee decided to recommend the middy blouse and skirt as combining more than any other costume all the desirable features of a general utility garment. The recommended costume will consist of a dark blue serge skirt, pleated or plain; a dark blue serge middy blouse for winter wear and white galatea middy blouses for spring and fall wear. A dark blue serge Peter Thompson suit or a simple one-piece serge dress in a dark navy may be substituted for the middy suit, though the former is the preferred costume. A low heeled common-sense shoe in black, dark brown or dark gray is recommended for school wear.

The Utah Agricultural College has grown rapidly and consistently since its founding in 1891. In 1916-17 the total registration, which includes students registered in extension, in correspondence-study, in summer school, and in the College proper, reached 3074. So large a number of men and women enrolled in one year indicates that the College is fulfilling its obligations by serving the citizens of the State.

¶ Illustrated descriptive circulars dealing with the work of the various Schools—Agriculture, Agricultural Engineering, Home Economics, Commerce, Mechanic Arts, General Science and Summer School—and with Student Activities, are published. **WRITE FOR COPIES.**

The College Bulletins are issued quarterly.

COLLEGE BULLETINS

Logan Utah.

Publ

A PLEA FOR CONSERVATION:

In case you have already received a Catalog, please return this one to the College or hand it to some person who is interested in securing an education.

UTAH AGRICULTURAL COLLEGE

Agricultural College of Utah

BULLETIN

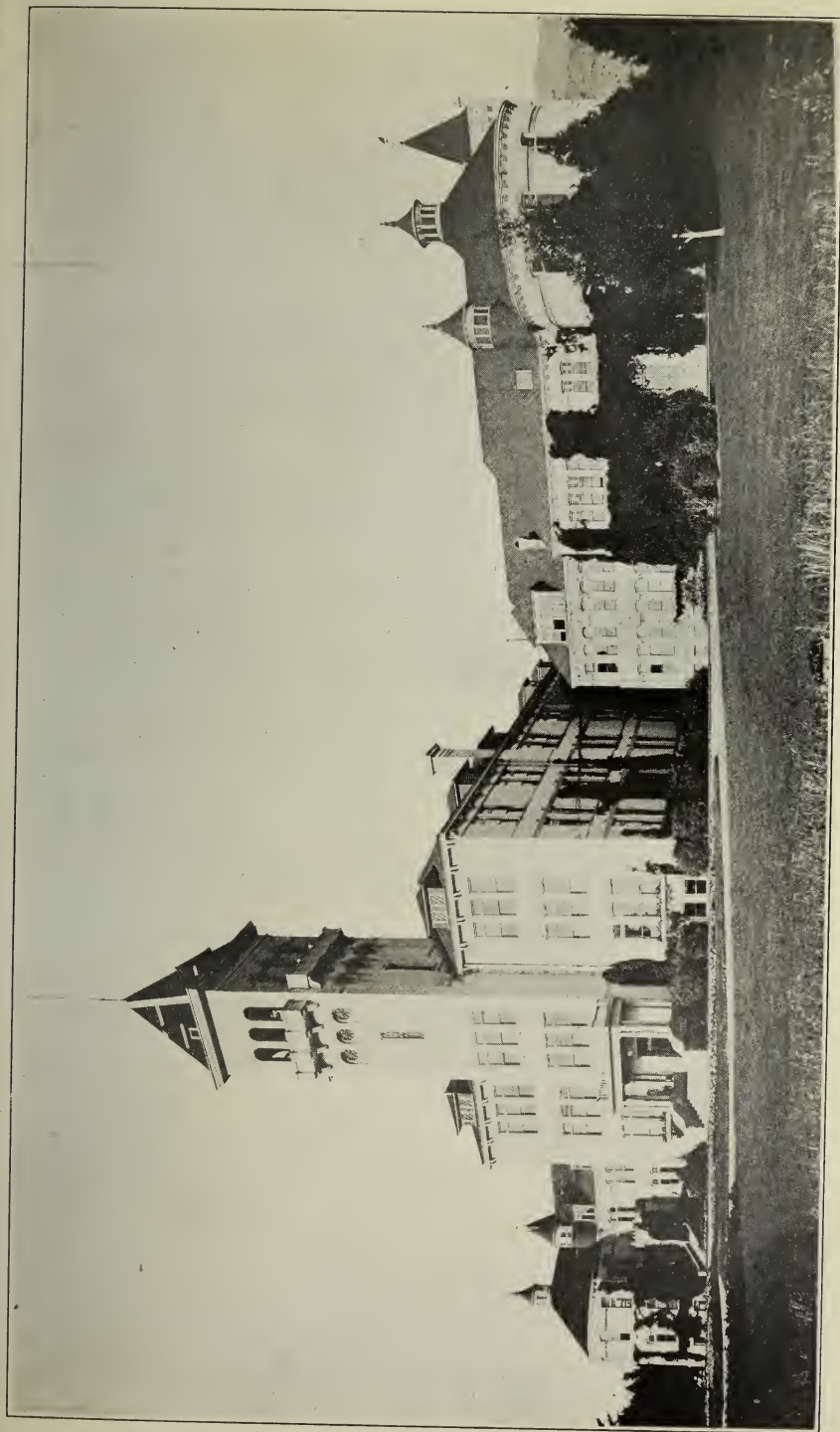
General Catalog

1918-1919



APPLICATION FOR ENTRY AS SECOND
CLASS MATTER AT POST OFFICE
AT LOGAN, UTAH, PENDING

THE UTAH AGRICULTURAL COLLEGE has been designated by the War Department as an approved College for the maintenance of a Reserve Officers' Training Corps. The College becomes, therefore, a training school for officers. It furthermore has entered into agreement with the U. S. Government under which it trains mechanics and technicians for the Army. Its graduates as experts in food production and conservation, in general agriculture and home economics and in such technical work as chemistry, physics, bacteriology and branches of engineering, have gone into Government service and will be needed in larger numbers in the future, especially during the present crisis. Those who are not immediately needed with the armed forces should be in College preparing for the great responsibilities of the near future.



MAIN BUILDING.



MAIN BUILDING AND MECHANIC ARTS BUILDING.



CHEMISTRY BUILDING.



WOMEN'S BUILDING.



LIVE STOCK BUILDING.



EXPERIMENT STATION, (foreground).
THOMAS SMART GYMNASIUM, (distance).

Agricultural College of Utah

BULLETIN

General Catalog

1918-1919

TWENTY-NINTH YEAR

With List of Students for 1917-1918

LOGAN, UTAH

Published by the College
July, 1918

CALENDAR FOR 1918

JANUARY							APRIL							JULY							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	1	2	3	4	5	..	1	2	3	4	5	6	..	1	2	3	4	5	6	1	2	3	4	5
6	7	8	9	10	11	12	7	8	9	10	11	12	13	7	8	9	10	11	12	13	6	7	8	9	10	11	12
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27	28	29	30	31	28	29	30	28	29	30	31	27	28	29	30	31

FEBRUARY							MAY							AUGUST							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	1	2	1	2	3	4	1	2	3	4	1	2
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17	18	19	20	21	22	23	19	20	21	22	23	24	25	18	19	20	21	22	23	24	17	18	19	20	21	22	23
24	25	26	27	28	26	27	28	29	30	31	..	25	26	27	28	29	30	31	24	25	26	27	28	29	30

MARCH							JUNE							SEPTEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	..	1	2	..	..	..	..	..	1	1	2	3	4	5	6	7	1	2	3	4	5	6	7	
3	4	5	6	7	8	9	2	3	4	5	6	7	8	8	9	10	11	12	13	14	8	9	10	11	12	13	14
10	11	12	13	14	15	16	9	10	11	12	13	14	15	15	16	17	18	19	20	21	15	16	17	18	19	20	21
17	18	19	20	21	22	23	16	17	18	19	20	21	22	22	23	24	25	26	27	28	22	23	24	25	26	27	28
24	25	26	27	28	29	30	23	24	25	26	27	28	29	29	30	..	..	..	..	..	29	30	31	..	..	..	..
31	..	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

CALENDAR FOR 1919

JANUARY							APRIL							JULY							OCTOBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
..	1	2	3	4	1	2	3	4	5	1	2	3	4	5	6	7	8	9	10	11
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19	20	21	22	23	24	25	..	20	21	22	23	24	25	26	20	21	22	23	24	25	26	27	28	29	30	31	..	
26	27	28	29	30	31	27	28	29	30	27	28	29	30	31	27	28	29	30	31	..	
...	

FEBRUARY							MAY							AUGUST							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	..	..	1	..	..	..	..	1	2	3	..	..	..	..	..	1	2	..	..	..	..	..	1	8
2	3	4	5	6	7	8	4	5	6	7	8	9	10	3	4	5	6	7	8	9	2	3	4	5	6	7	8
9	10	11	12	13	14	15	11	12	13	14	15	16	17	10	11	12	13	14	15	16	9	10	11	12	13	14	15
16	17	18	19	20	21	22	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22
23	24	25	26	27	28	..	25	26	27	28	29	30	31	24	25	26	27	28	29	30	23	24	25	26	27	28	29
...	31	30

MARCH							JUNE							SEPTEMBER							DECEMBER						
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College Calendar for 1918-19

(Twelve weeks constitute a Quarter; six weeks constitute a Term)

FALL QUARTER

September 30, Monday	Entrance examination. Registration of former students and new students admitted on certificates.
October 1, Tuesday	Classes organized.
November 8, Friday	Agricultural Club Ball.
November 11, Monday	Mid-term work begins.
November 28, Thursday	Thanksgiving Day.
December 6, Friday	College Play.
December 13, Friday	Debate Try-outs.
December 21, Saturday	Christmas Recess begins. Fall quarter ends.

WINTER QUARTER

December 30, Monday	Winter quarter begins.
January 1, Wednesday	New Year's Day.
January 20-25	Farmers' Convention and Housekeepers' Conference at Cedar City.
January 27-Feb. 8	Exhibition of Arts and Crafts by Utah Artists.
January 27-Feb. 1	Extension Division Convention at Logan.
February 3 to 8	Farmers' Round-up and Housekeepers' Convention at Logan.
February 5, Wednesday	Freshman Play.
February 7, Friday	Commercial Club Ball. Mid-term ends.
February 12, Wednesday	Lincoln's birthday.
February 18, Tuesday	Oratorical Contest—Hendricks Medal.
February 22, Saturday	Washington's birthday. Military Ball.
March 7, Friday	College Opera.
March 18, Tuesday	Oratorical Contest—Casto Medal.
March 21, Friday	Junior Promenade. Winter quarter ends.

SPRING QUARTER

March 24, Monday	Spring quarter begins.
April 15, Tuesday	Arbor Day.
April 25, Friday	"A" Day. Annual Club Day for High School Agricultural and Home Economics Clubs.
May 5, Monday	Mid-term work begins.
May 13, Tuesday	Senior Chapel.
May 17, Saturday	May Festival.
May 20, Tuesday	Conferring of Scholarships and other honors.
June 1, Sunday	Baccalaureate Sermon.
June 2, Monday	Commencement and Alumni Ball.
June 6, Friday	Spring quarter ends.

SUMMER QUARTER

June 9, Monday	Summer quarter begins.
June 13, Friday	Reception to Summer School students.
June 28, Saturday	Annual excursion.
July 4, Friday	Independence Day.
July 18, Friday	First term ends.
July 21, Monday	Second term begins.
July 24, Thursday	Pioneer Day.
August 29, Friday	Summer quarter ends.

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Committee on Experiment Station—A. W. Ivins, J. W. Knight, Lois Hayball.
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Officers of Administration and Instruction†

The College Faculty

(Arranged in Groups in the Order of Seniority of Appointment)

ELMER GEORGE PETERSON, A. M., Ph. D.
President

GEORGE WASHINGTON THATCHER, B. S.
Professor of Music

WILLIAM PETERSON, B. S.
Professor of Geology
State Geologist

HYRUM JOHN FREDERICK, D. V. M.
Professor of Veterinary Science

FRANK RUSSEL ARNOLD, A. M.
Professor of Modern Languages

JAMES CHRISTIAN HOGENSON, M. S. A.
State Leader, Junior Vocational Work, Extension

JOHN THOMAS CAINE, B. S.
Auditor

JOHN THOMAS CAINE III, M. S. A.*
Director, Extension Division

FRANKLIN LORENZO WEST, Ph. D.
Director, School of General Science
Professor of Physics

FRANKLIN STEWART HARRIS, Ph. D.
Director, Experiment Station
Professor of Agronomy

†The College Council consists of the President and all members of the faculty with the rank of Professor, Associate Professor, or Assistant Professor.

*On leave.

AGRICULTURAL COLLEGE OF UTAH

BLANCHE COOPER, B. S.
Lecturer in Home Economics
Correspondence-Study Department

JOSEPH EAMES GREAVES, M. S., Ph. D.
Professor, Bacteriology and Physiological Chemistry

CALVIN FLETCHER, B. Pd.
Professor of Applied Arts

RAY BENEDICT WEST, C. E.
Director, Schools of Agricultural Engineering and Mechanic Arts
Professor of Agricultural Engineering

ROBERT JAMES EVANS, Ph. D.
Assistant Director and County Agent Leader, Extension

GEORGE RICHARD HILL, Ph. D.
Director, School of Agriculture
Professor of Botany and Plant Pathology

JAMES HENRY LINFORD, D. Did.
Director, Summer School
Superintendent, Correspondence-Study Department

ARTHUR HERBERT SAXER, M. S., Ph. D.
Professor of Mathematics

NIELS ALVIN PEDERSEN, A. M.
Professor of English

WILLIAM ERNEST CARROLL, M. S., Ph. D.
Professor of Animal Husbandry

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Registrar

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Secretary, Treasurer and Purchasing Agent

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Director of Athletics
Farm Help Specialist, Extension

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Medical Supervisor of Students

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Professor of Household Administration

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Superintendent of Grounds and Greenhouses

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Assistant in Woodwork

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Assistant, Registrar's Office

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Clerk, Extension Division

O. BLANCHE CONDIT, A. B.

Clerk, Experiment Station

CHARLES BATT

Superintendent of Water, Heat, Sewerage and Lighting Plant

RASMUS OLUF LARSEN

Superintendent of Buildings

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1918-1919

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Graduation—Professors Saxer, Carroll, Fletcher, Greaves, Abbot.

College Publications—Professors Pederson, Arnold, Robinson, Ogburn, Huntsman.

Attendance and Scholarship—Professors Henderson, Frederick, Porter, Abbot, Brooke, Hagan, Mrs. Hill.

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Publicity—Professors Arnold, Alder, Huntsman, Robinson.

Exhibits—Professors John T. Caine III, Fletcher, Merrill, Ravenhill, Hansen, Moen, Israelsen.

Entrance—Professors Daines, Wallin, Hirst.

Debating—Professors Pedersen, C. W. Porter, Hendricks, Daines, Ogburn, Wallin, Miss Smith.

Student Employment—Professors Merrill, Greaves, Powell, Newey, Saxer, Geo. B. Caine, Mr. Brimley.

Student Body Organization—Professors Thatcher, Ray B. West, M. C. Merrill.

Graduate Employment—Professors Hill, Harris, F. L. West, C. W. Porter, Mr. Brimley.

Schedule—Professors F. L. West, Saxer, C. W. Porter.

Lyceum Course—Professors Hendricks, Thatcher, Arnold, Pedersen, Johnson, Mr. Coburn.

Graduate Work—Professors Harris, F. L. West, M. C. Merrill, Ravenhill.

Campus Improvements—Professors M. C. Merrill, Ray B. West, Fletcher, Hill.

College Council of Defense—Professors Thomas, Daines, Fletcher.

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Editors of Catalog—Professors N. A. Pedersen and V. H. Ogburn.

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H. J. FREDERICK, D. V. M.....	Veterinarian
F. L. WEST, Ph. D.....	Meteorologist
W. E. CARROLL, Ph. D.....	Animal Husbandman
J. E. GREAVES, Ph. D.....	Bacteriologist and Chemist
BYRON ALDER, B. S.....	Poultryman
G. R. HILL, JR., Ph. D.....	Plant Pathologist
O. W. ISRAELSEN, M. S.....	Irrigation and Drainage
M. C. MERRILL, Ph. D.....	Horticulturist
W. W. HENDERSON, M. S. A.....	Entomologist
C. T. HIRST, M. S.....	Associate Chemist
H. R. HAGAN, M. S.....	Associate Entomologist
GEORGE STEWART, M. S.....	Assistant Agronomist
D. W. PITTMAN, M. S.....	Assistant Agronomist
TRACY H. ABELL, M. S.....	Assistant Horticulturist
YEPPA LUND, B. S.....	Assistant Chemist and Bacteriologist
HAROLD GOLDTHORPE, B.S..	Assistant Chemist and Bacteriologist
IRVING J. JENSEN, B. S.....	Assistant Agronomist
L. F. NUFFER, B. S.....	Assistant Plant Pathologist
SCOTT EWING	Assistant Meteorologist
LUCIAN MECHAM	Assistant Plant Pathologist
O. BLANCHE CONDIT, A. B.....	Clerk and Librarian
K. B. SAULS.....	Director's Secretary
CARRIE THOMAS	Mailing Clerk

In Cooperation with U. S. Department of Agriculture

L. M. WINSOR, B. S.....	Irrigation
A. F. BRACKEN, B. S.....	Dry-Farming

Extension Division Staff

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John T. Caine III.....	Director	Logan
R. J. Evans.....	Assistant Director and County Agent Leader	Logan

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L. M. Winsor.....	Irrigation and Drainage.....	Salt Lake City
Ben R. Eldredge.....	Dairying	Salt Lake City
J. W. Paxman	Dry-Farming	Nephi
J. Edward Taylor.....	Field Horticulturist.....	Salt Lake City
L. A. Richardson.....	Farm Management	Logan
J. W. Watson.....	Farm Labor.....	Salt Lake City
H. W. Sanborn.....	Poultry	Logan
H. W. Willis.....	Veterinary Science	Logan
H. B. Joy.....	Pork Production	Logan
Alma Wilson	Plant Diseases	Logan
Rozina Skidmore	Domestic Art	Logan

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Lowry Nelson	Assistant County Agent Leader.....	Logan
W. W. Owens.....	District County Agent Leader.....	Richfield
J. P. Welch.....	Millard County	Hinckley
R. H. Stewart.....	Box Elder County.....	Brigham City
H. J. Webb.....	Salt Lake County.....	Sandy
H. A. Christiansen....	Beaver County	Beaver
W. P. Thomas.....	Weber County	Ogden
Alma Esplin	Iron County	Cedar City
J. H. Wittwer.....	Uintah County	Vernal
D. S. Jennings.....	Utah County	Provo
Theron W. Bennion....	San Pete County.....	Manti
Robert L. Wrigley....	Cache County	Logan
Lew Mar Price.....	Carbon County	Price
J. R. Jennings.....	Washington County	St. George
A. D. Egbert.....	Garfield-Piute Counties	Panguitch
G. M. Hess.....	Duchesne County	Roosevelt
Orson P. Madsen.....	Emery County	Castledale
E. R. Price.....	Wasatch County	Heber City
H. B. Woodbury.....	Jaab County	Nephi
N. E. Edlefsen.....	Sevier County	Richfield
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A. E. Smith.....	Wayne County	Loa
A. L. Christiansen....	Tooele County	Tooele

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C. O. Stott.....	San Juan and Grand Counties.....	Monticello
S. R. Boswell.....	Morgan-Summit Counties	Coalville
R. C. Pixton.....	Utah County	Provo
Hugh Hurst	Kane County	Kanab

HOME DEMONSTRATORS

Gertrude McCheyne ..	State Home Demonstration Leader.....	Logan
Hortense White	Assistant Home Economics.....	Logan
Hettie White	Millard County	Milford
Rena B. Maycock.....	Iron County	Cedar City
Alice Holmstead	Sevier County	Richfield
Anna Edmunds	Salt Lake County.....	Salt Lake City
Mary Lucile Lee.....	Davis County	Farmington
Edna Ladwig	Weber County	Ogden
Josephine B. Bagley...	Utah County	Provo
Effie Webb	Box Elder County.....	Brigham City
Edith R. Lewis.....	San Pete County.....	Manti
Lucile Y. McAlister...	Uintah County	Vernal
Minnie J. Smith.....	Wayne County	Loa
Anna F. Otte.....	Cache County	Logan
Jean Cox	Salt Lake City.....	Salt Lake City

JUNIOR VOCATIONAL WORK

J. C. Hogenson.....	State Leader	Logan
Goldie Faux	Assistant State Leader Junior Vocational Work, Extension.....	Logan
Henry C. Oberhansly..	Assistant State Leader Junior Vocational Work, Extension.....	Logan
Bessie Eaton	Assistant State Leader Junior Vocational Work, Extension.....	Logan

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A. I. Tippetts.....	Weber County	Ogden

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Blanche Cooper	Home Economics.....	Salt Lake City

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EXTENSION OFFICE

Ida R. Mitchell.....	Chief Clerk	Logan
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Branch Agricultural College of Utah at Cedar City

OFFICERS OF ADMINISTRATION AND INSTRUCTION

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President

ROY FISHER HOMER, B. S.
Principal

PARLEY DALLEY, B. S.
Instructor in Chemistry and Physics

ROBERT S. GARDNER, B. S.
Instructor in Ironwork and Mathematics

DAVID SHARP, JR., B. S.
Instructor in Animal Husbandry

H. J. FREDERICK, D. V. M.
Director of Veterinary Clinics

JOHN L. COBURN, B. S.
Financial Secretary

JOHN S. CHRISTENSEN, B. S.
Director of Physical Education and Athletics

GEORGE H. LUNT, A. B.
Instructor in History and Economics

GILBERT L. JANSON
Instructor in Commercial Subjects

WM. G. WOOLLEY, B. S.
Instructor in Agronomy, Superintendent of Farms

JOHN H. PENDLETON, B. S.
Instructor in Woodwork, Mechanical Drawing and Mathematics

Instructor in Art

LOTTIE H. KUNZ, B. S.
Instructor in English

RENA B. MAYCOCK
Instructor in Domestic Science

KENNETH ROYLANCE
Director Band and Orchestra

H. LE ROY FRISBY
Director Chorus, Instructor in Vocal

EVA S. THOMAS
Instructor in Domestic Art

H. CLAUDE LEWIS
Instructor Education and Methods

AMY BOWMAN
Supervisor of Training

ANNA H. PETTIGREW
Librarian

WILLIAM W. FLANIGAN
Heating Engineer, Assistant Farm

ALONZO AHLSTROM
Care Live Stock

County Chairmen

W. S. Hansen	Collinston, Box Elder	County
Jos. F. McGregor	Beaver, Beaver	County
C. R. Marcussen	Price, Carbon	County
H. H. Blood	Kaysville, Davis	County
Lars P. Oveson	Castledale, Emery	County
John N. Henrie	Panguitch, Garfield	County
<hr/>		
Wilford Day	Moab, Grand	County
A. H. Belliston	Parowan, Iron	County
Heber J. Meeks	Nephi, Juab	County
O. L. Thompson	Kanab, Kane	County
Daniel Heiner	Scipio, Millard	County
Joseph Ipson	Morgan, Morgan	County
G. H. Robinson	Junction, Piute	County
R. D. Young	Laketown, Rich	County
L. R. Anderson	Richfield, Sevier	County
L. H. Redd	Manti, Sanpete	County
James L. Kearns	Blanding, San Juan	County
C. Alvin Orme	Park City, Summit	County
Don B. Colton	Tooele, Tooele	County
E. W. Southwick	Vernal, Uintah	County
E. H. Snow	Lehi, Utah	County
John Halls	St. George, Washington	County
Joseph Eckersley	Huntsville, Weber	County
D. A. Broadbent	Loa, Wayne	County
R. S. Collett	Heber, Wasatch	County
	Roosevelt, Duchesne	County

AGRICULTURAL COLLEGE OF UTAH

LOCATION

The Agricultural College of Utah is in Logan, the county seat of Cache county, one of the most prosperous agricultural counties in the State. The city has a population, thrifty and progressive, of about 10,700; it is comparatively free from vice, quiet, orderly, clean, and generally attractive, with neat homes, substantial public-buildings, electric lights, a sewer, and a water system. The main streets are paved and cement walks ramify the city; an excellent street-car line extends from the station to the College, and the interurban connects Logan with other towns of the valley as well as with Salt Lake City.

The College, uniquely situated on a broad hill overlooking the city, one mile east of Main street, commands a view of the entire valley and surrounding mountain ranges. The site of the College was formed by the receding waters of prehistoric Lake Bonneville which built an enormous delta at the mouth of Logan canyon upon which the College buildings and farm are located. The beauty and geological significance of the location are perhaps unsurpassed. A few hundred yards to the south is the Logan river. A mile to the east is a magnificent mountain range with a picturesque canyon. In other directions are the towns and farms of Cache county distinctly visible thru the clear atmosphere. The valley is a fertile, slightly uneven plain, 4,600 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and completely surrounded by the Wasatch mountains. It is one of the most attractive and healthful valleys in the West.

POLICY

The Agricultural College of Utah provides, in accordance with the spirit of the law under which it was organized, a liberal, thoro, and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided; for the practical is based upon, and united with, the thoroly scientific. In addition to the practical work of the different courses, students are given thoro training in the sciences, mathematics, history, English, art, modern languages, and other related subjects. The object is to foster all that makes for right living, good citizenship, and high efficiency.

Under this general policy, the special purpose of the Agricultural College of Utah is to be of service in the upbuilding of the State and the great West to which it belongs. The instruction in agriculture and agricultural engineering, therefore, deals with the special problems relating to the conquest of the great areas of unoccupied lands, the proper use of the water supply, and the kinds of crop or live stock which in Utah may be made most profitable; instruction in mechanic arts, points out the most promising trades and teaches them so as to meet the needs of the State; instruction in commerce relates to the undeveloped resources and the present commercial conditions of the State, and investigates the principles and methods to be applied in the commercial growth of Utah; instruction in home economics teaches the women right living and economic independence from the point of view of prevailing Utah conditions.

The dominating spirit of the policy of the Agricultural College of Utah is to make the common work of the world—the work that most men and women must do—both profitable and pleasant. The motto of the College is, Labor is Life.

HISTORY

The Agricultural College of Utah was founded March 8th, 1888, when the Legislative Assembly accepted the terms of the national law passed by Congress on July 2nd, 1862. Under this Act of Congress, and the Enabling Act providing for the admission of Utah to the Union, 200,000 acres of land were granted to the State from the sale of which there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives \$15,000 annually for the Experiment Station. Under the Adams Act of 1906, the State receives an additional \$15,000 annually for research work by the Experiment Station. Under the Morrill Act of 1890, amended by the Nelson Act of 1907, the State receives \$50,000 annually for instruction at the Agricultural College. Under the Lever Act, the State receives, in 1917-18, about \$15,000 which will increase for four years, for agricultural extension work to be done by the Agricultural College.

These federal appropriations, together with the annual income from the land-grant fund, represent the income received from the general government. Since most of these funds must be used in accordance with the law for specific purposes, the institution is dependent on State appropriations for funds with which to provide additional instruction and for general maintenance. These needs have been generously met in the past by the Legislative Assemblies of the State. In 1888 the sum of \$25,000 was appropriated for buildings, and the county of Cache and the city of Logan gave one hundred acres of land on which to build the College. Since that time the State has, from time to time, appropriated sufficient funds to erect and maintain all the buildings described in a later section, besides providing largely for instruction, experimentation, and extension work.

By a recent legislative action, the College receives annually 28.34 *per cent.* of 28 *per cent.* of the total tax revenue of the State,

after deducting the revenue from 2.4 mills on the total State valuation, (which is not to be exceeded) set aside for the support of the elementary and the high schools. In the same ratio the College will participate in the revenue from the recent occupational tax. The State, moreover, provides \$10,000 annually for extension purposes, \$15,000 for experimental work, and an increasing fund for farm and home demonstrations.

In September, 1890, the institution was first opened for the admission of students. Degree courses were offered in agriculture, domestic arts, civil engineering, mechanic arts, and commerce; a preparatory course and short courses in agriculture and engineering were also given. Since that time many improvements have been made in the courses; some have been abandoned; various special, practical, year and winter courses in commerce, mechanic arts, and home economics have been added; the standard of the college work has been raised. In 1903, the Board of Trustees established the School of Agriculture, the School of Home Economics, the School of Mechanic Arts, the School of Commerce, and the School of General Science, and in 1911 the School of Agricultural Engineering.

In 1913, the Branch Normal School at Cedar City was made a branch of the Agricultural College and is so maintained.

GOVERNMENT

The government of the College is vested primarily in the Board of Trustees and, under their control, in the four other administrative bodies,—the Directors' Council, the College Council, the College Faculty, and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of thirteen members. Twelve are appointed by the Governor with the approval of the State Senate; the thirteenth is the Secretary of State who is *ex*

officio a member. This Board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships, to employ the instructing force and other officers of the College, and to formulate the general policy of the institution.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for approval. In addition, there are committees, largely advisory, that deal with the general interests of the College.

THE DIRECTORS' COUNCIL consists of the President, the Directors of the various schools,—Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, General Science, and Summer Quarter—the Director of the Experiment Station, and the Director of the Extension Division. This body has immediate supervision of the instruction and discipline in all the various schools. It constitutes a permanent executive and administrative committee of the College Council and Faculty.

THE COLLEGE COUNCIL consists of the President of the College and all members of the faculty holding the rank of professor, associate professor or assistant professor. All important questions of discipline and policy are decided by this body.

THE COLLEGE FACULTY includes the President, the professors, the associate professors, the assistant professors, ranking professors, the instructors, and the assistants. As an administrative body it is concerned with the ordinary questions of methods and discipline and with various other matters pertaining to the general welfare of the College. Thru its standing committees it is in intimate contact with the student body and with the life and interests of the college community.

THE STANDING COMMITTEES have delegated to them the immediate direction of all the phases of college life. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and of the students;

the interests of the students on the athletic field, in the amusement halls, and in their various organizations,—all are within the province of appropriate committees.

THE EXPERIMENT STATION STAFF consists of the President of the College, the Director of the Station, and the heads, with their assistants, of the departments of the Station. This body is employed in the investigation of problems peculiar to agriculture in this part of the country. It is further responsible for the circulation, thru private correspondence and regular bulletins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for the public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the institution, and the community. Most important of these is an active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies, and exemplary personal conduct are insisted upon at all times, by the administrative bodies of the College.

ADMISSION AND GRADUATION

ADMISSION. Entrance to the freshman class is based upon a certificate of graduation from an accredited high school; or upon the presenting of 15 approved high school units of work; or upon examination, in case of students of special training not obtained in high school.

A high school unit is equivalent to eight preparatory credits that are of one hour in length, or ten that are of forty-five minutes.

A student may be ranked as a conditioned Freshman provided he is deficient in not more than one and one-half units of high school work. This deficiency must be removed, however, before the student is admitted to Junior standing.

Students who enter with more than one and one-half units of high school deficiency must register in the vocational courses (see page 61).

ADVANCED STANDING. Advanced standing for college work taken after completion of four years of high school may be granted at any time by the Committee on Advanced Standing provided the student presents satisfactory evidence that the work offered is equivalent to the work for which he wishes to substitute it.

Advanced standing or college credit for excess high school units may be allowed at the time the student is given Junior class standing provided:

(a) That the work for which advanced credit is sought be as advanced as the work given in the Freshman year;

(b) That in each subject the work be approved by the department concerned; and

(c) That not more than nine hours of work done in the Junior College of the Utah Agricultural College, and none of the work submitted for advanced credit shall have a grade lower than "B."

The ratio of transfer shall be nine (9) credits for one unit of high school work, unless otherwise recommended by the department concerned.

Twenty-seven (27) credit-hours shall be the maximum acceptable on an excess transfer from high school.

CLASS STANDING. Students are ranked as Freshmen, Sophomores, Juniors and Seniors at the time they enter, and this rank, when once fixed, is not changed during the school year.

Thirty-six hours (36) of approved college work, in addition to the prescribed entrance requirements, are required for Sophomore rank; eighty-one hours for Junior rank (see page 31); and one hundred thirty hours for Senior rank. The foregoing requirements are to be exclusive of the required courses in Physical Education and Drill.

ADMISSION TO VOCATIONAL COURSES. Persons 18 years or over, and those under eighteen who have had two years of high

school, are admitted without examination to the vocational courses.

To graduate from any of the schools, or to obtain class standing, special students not having the prescribed entrance requirements, must satisfy a committee, by special examination, of their ability to pass the entrance requirements. This committee shall consist of the committee on entrance, the professor of English, and two members of the faculty from the school in which the student wants to do his major work. Application for the examination, which must be taken not later than the beginning of the Junior year may be made to the registrar the first of the last week of any term.

REGISTRATION. The fall term opens Monday, September 30; the winter term, Monday, December 30; and the spring term, Monday, March 24. It is of decided advantage to register upon the opening date.

Students entering more than one week after the opening of any term must pay an extra fee of \$2.50, and the amount of work for which they will be allowed to register for that term will be reduced by one and one-half credit hours for each week or fraction thereof that the student is late in his registration.

Fifteen hours, exclusive of Physical Education and Drill, is the normal registration for any one term. A student may, however, with the consent of the school director, register for seventeen hours.

TERM HOURS. A term hour of credit is the credit given for one hour's lecture or three hours of laboratory work each week for twelve weeks. This is the basis upon which credits are now calculated at the College.

SEMESTER HOURS. Semester hours of credit have been employed at the College previous to September 1, 1918. A semester hour is the same as a term hour, except that the period is eighteen weeks.

Semester hours may be converted into term hours by multiplying by one and one-half.

JUNIOR AND SENIOR COLLEGE COURSES

The collegiate work of the institution is divided into two groups or divisions: Junior College courses and Senior College courses.

JUNIOR COLLEGE COURSES. Any student who has met the entrance requirements imposed upon the Freshman class may pursue any of the Junior College courses provided he has had the necessary prerequisites.

SENIOR COLLEGE COURSES. Any student wishing to pursue Senior College courses in any subject must first obtain full Junior class standing and have completed the Junior College requirements in that subject, provided that any student having the necessary qualifications may pursue a Senior College course after receiving the permission of the instructor of the course and the director of the school in which he is registered.

JUNIOR CLASS STANDING. To obtain Junior class standing a student must have completely satisfied the entrance requirements. He must have satisfied all of the Junior College requirements in Physical Education and Drill, and, in addition, present eighty-one hours of Junior College work which shall include fifty-four hours of work in the required groups. (See page 59.)

GRADUATION. The degree of Bachelor of Science in Agriculture, Home Economics, Agricultural Engineering, Commerce, Mechanic Arts, or General Science, is conferred upon those who present 15 units of high school work and full Junior class standing together with 54 hours of work from the Senior College and sufficient work from either college to make the total number of hours presented equal to 180 exclusive of the required courses in Physical Education and Drill. A student who has been excused from Physical Education or Drill for phys-

ical disability or other valid reason must present an equivalent amount of other work for graduation. The student must meet all of the general requirement of the College (see page 37) and all of the group requirements of the school from which he wishes to graduate. (See page 59.)

OTHER REQUIREMENTS FOR GRADUATION. The student must have been in attendance at least one school year preceding the conferring of the degree. He must have no grade lower than "D" in any subject used for graduation. Four-fifths of his term grades must be "C" or better. He must be of good moral character. He must have discharged all college fees. He must be recommended for graduation by the faculty of the school in which he is doing his major work. He must receive the favorable vote of two-thirds of the members of the College Council.

No student may be recommended to the College Council for graduation as long as he has any deficient grades in any subject used toward graduation. Students who expect to graduate at the June commencement must have their work in shape for presentation to the College Council at least 60 days before commencement.

GRADUATION AT THE CLOSE OF THE SUMMER QUARTER. Any student who can satisfy the requirements for graduation by the close of the Summer Quarter may be presented to the College Council in May. Such students are listed with the class of the following year and receive their public graduation at the following Commencement. The graduation of such students, however, will be certified to by the proper authorities of the College as soon as their work is completed, *provided* it is completed before September 15 of the year in which they are passed upon for graduation.

THE CLASS OF 1919. The foregoing requirements for graduation will apply to the class of 1919, with the exception of the distribution of the work in the Junior and Senior College.

The College Council is the only body that has the authority

to waive or abridge in any way the foregoing requirements for graduation.

REQUIREMENTS FOR MASTER'S DEGREE

The degree of Master of Science may be granted on the completion of the following requirements:

The candidate must have been in actual residence at the College at least one (1) year after receiving the Bachelor's degree, and must obtain fifty-one (51) credits for work in addition to the 180 College credits and 15 High School units required for the Bachelor's degree.

To be admitted to the candidacy for the Master's degree the student must have his course of study approved by November 1 by the faculty of the school in which his major subject is taken.

A thesis covering work done in the major department must be prepared by May 1, and must be accepted by the faculty of the department.

The candidate must successfully pass an oral examination, which will be given by the heads of departments of the School in which the major subject is taken.

ORGANIZATION

The work of the College falls into three distinct divisions: first, the Experimental Division, having for its object the discovery of new truth or the new application of established truth, for the advancement of life; second, the College proper, giving instruction, especially to young people, on the home campus of the College; third, the Extension Division, which carries instruction to the people who can not come to the College campus.

To accomplish this work the following administrative divisions exist, each of which draws upon the departments for its instructional or experimental force:

I. Experimentation

1. The Agricultural Experiment Station

II. Instruction on the College Campus—the College Proper

2. The School of Agriculture
3. The School of Home Economics
4. The School of Agricultural Engineering and Mechanic Arts
5. The School of Commerce
6. The School of General Science
7. The Summer Quarter.

III. Instruction beyond the College campus

8. The Extension Division

The instructional and investigational force and equipment necessary to carry out the work of the above divisions are organized into departments, of co-ordinate authority, each of which represents a somewhat definite field of knowledge. All officers of instruction or experimentation belong to one or another of these departments. One professor, designated head, carries the administrative responsibility of the department. At present the College maintains forty-three departments.

THE STUDENT BODY ORGANIZATION AND STUDENT CLUBS

The Student Body Organization embraces all the students of the institution. Its prime object is to foster a proper spirit of college loyalty and to give the students practice in managing public affairs. It also secures dispatch and efficiency, as well as uniformity, in the administration of all matters pertaining to the entire student body and induces all students to participate in college activities. The organization provides each member with a maximum of proper athletic, theatrical, and social recreation at a minimum expense, viz., \$5 annually. This society has control, under faculty direction, of the following student activities:

1. *Athletics*, including all inter-class and intercollegiate contests in football, baseball, basketball, and track events. The Agricultural College is a member of the Rocky Mountain Conference, a fact which insures an interesting athletic program.

2. *Musicals*, including all public performances of the Band, the Orchestra, and musical clubs.

3. *Theatricals*. In the past, *A Midsummer Night's Dream*, *She Stoops to Conquer*, *Pygmalion*, *Milestones*, *The Admirable Crichton*, and various other productions, have been presented.

4. *Debating and Public Speaking*. Triangular debating arrangements have been made whereby, annually, the Agricultural College debates the University of Utah and the Brigham Young University on the same question. Interstate debates are also held. Those who make places on the teams not only win awards but are admitted to membership in the Agora, an honorary debating fraternity. Interest in inter-class debating, for which the Thomas medals are given, is keen.

The annual oratorical contests for the Hendricks medal, for the Casto medal, for that given by The Sons of the American Revolution, and for the chance to represent the College in the Inter-collegiate Peace contests, maintain among the students an active interest in extemporaneous public speaking. For dates of these contests, see college calendar, page 5.

5. *Student Publications*. The students of the College, under the direction of the faculty of English, publish a weekly school paper, *Student Life*. The junior class publishes the College year book, named *The Buzzer*; the Quill Club, the *Agi-Literose*; the Ag. Club, *The Link*.

6. *Lyceum Course*. Each year the Student Body presents, in connection with the B. Y. College, from four to six lectures, readers, or musical attractions, of national or local repute. These entertainments are free to members of the Student Body.

CLUBS

Not affiliated with the Student Body organization, but standing largely for the interests of the various schools, are the following clubs:

The Agricultural Club, which aims to promote interest in scientific agriculture. The club has effected similar organizations

in the high schools of the State. Special lectures, often illustrated, are given at intervals throughout the season.

The Agricultural Engineering Society, which aims to stimulate the interest of students in the more practical side of the work embraced by the engineering courses. Men of repute are invited to discuss questions before the society. It also aims to promote the interest of the students socially.

The Home Economics Club, which is composed of the students in domestic science and arts. The object of the club is to keep students in touch with movements in their field and to promote interest in home economics. Many home economic societies in the high schools of the State are affiliated with this organization.

The Commercial Club, working to promote the interests of the Commercial School, to popularize the commercial courses, and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men of the State, on topics of special interest to the business man. All commercial students are eligible to membership.

The Mechanic Arts Association, designed to promote the social and intellectual interests of its members. All the teachers and all the regularly enrolled students of mechanic arts are eligible to membership. Monthly meetings are held thruout the year, at some of which lectures are given by specialists.

Gamma Sigma Delta, a chapter of the national honorary fraternity for students in agriculture. Members are chosen for scholarship from the upper two-fifths of the junior and senior classes in agriculture.

The Agora, a fraternal organization open to men from the intercollegiate debating teams. Its purpose is to foster debating in the College and to keep alive among the old debaters an interest in such contests.

The Chemistry Club, organized to promote interest in chemistry.

The Be-No Club, organized to foster scholarship, fellowship, and loyalty.

The Benedicts' Club, designed to promote the social welfare of married students and to lower their expenses by co-operative buying.

The Perizwig Club, composed of students prominent in dramatics, produces annually several plays.

The Booklover's Club, organized for the study of subjects related to English literature but not usually treated in the classroom.

The Quill Club, an organization of writers.

The Camera Club, a group of students interested in artistic photography.

The Cosmos Club, organized for the study of world politics.

Le Cercle Francais, maintained by students in French for practice in speaking the language.

Beaux Arts Club, designed to encourage interest in the various phases of Art by lectures and informal social meetings.

Various other clubs, as well as a number of fraternities and sororities, are also in successful operation.

STUDENT EXPENSES

Tuition is free. Utah students pay an annual entrance fee of \$5.00; students from other states pay \$25.00. A uniform Laboratory and Library fee of \$5.00, a Gymnasium fee of \$2.00, and a withdrawal deposit of \$1.00, are charged every student.

Every regular student must pay a Student Body fee of \$5.00, for which a ticket is issued admitting him to all the activities controlled by the Student Body organizations: athletic events—football, basketball, baseball, and track—dramatic and musical entertainments, socials, lectures, etc. This system has been found to be a great saving to the students and a most excellent means of fostering proper interest in student activities.

The Utah Agricultural College has been designated by law as an Infantry Unit of the Reserve Officers' Training Corps. As

such it has promised the Government to give certain military instruction of a definite kind and character.

Every physically fit male student who registers at the College becomes automatically a member of the Reserve Officers' Training Corps and subscribes to the military requirements of the institution.

In order to remain and receive instruction at the College or to graduate finally from the College, the student must be in attendance at all military classes and do satisfactory work in them.

The military requirements of the College are as follows: *Five hours per week of military instruction during each year of the regular four year college course, or during such lesser time as the student may be in attendance at the college.*

All male students, who are citizens of the United States, must take military drill. To this rule there is *no exception*, other than physical disability, which must be certified by the College Physician.

All members of the Reserve Officers' Training Corps are required to wear the regulation uniform. The Government allows to each member of the R. O. T. C. commutation of uniform. During the last school year, however, the amount allowed by the Government was not sufficient to purchase the uniform and it was necessary for the student to pay the difference, which amounted to about \$13.00.

All women students who are physically fit must take Physical Education during the first two years of their attendance at the College, or until they have satisfactorily completed two years of college Physical Education.

All students taking Physical Education must provide themselves with a gymnasium suit and gymnasium shoes. Cost, about \$6.00.

All students in Foods and Dietetics must provide themselves with two wash dresses (pattern of goods furnished from Home Economics Department), two white aprons, two holders six inches

square, two half squares of white cheese cloth for use as head covering.

Students in any department of Home Economics are earnestly requested to set the good example of wearing shoes with not more than three-fourths inch heels, protected by rubber tips.

All graduates from the School of Home Economics must spend a period of six weeks in residence at the Practice House. The expenses are \$5.00 per week for board and room.

The fee charged for a diploma of graduation is \$5.00.

Good board and room in a private home costs from \$5 to \$6 a week. By renting rooms and boarding themselves, students are able to reduce considerably the cost of room and board.

The College maintains a modern, well equipped cafeteria where, at cost, students may get a well cooked meal daily.

The cost of necessary books and stationery ranges from \$15 to \$30 a year.

Students are held responsible for any injury done by them to the College property.

The following table furnishes an estimate of the actual yearly expenses of students attending the Utah Agricultural College:

	Lowest	Average	Liberal
Tuition, books, fees, etc.....	\$ 40	\$ 40	\$ 40
Room and board.....	160	180	200
Incidentals or miscellaneous.....	25	70	135
Total.....	\$225	\$290	\$375

War conditions may increase these estimates.

The Senior Loan Fund, maintained by the Student Body, has helped many students.

SCHOLARSHIPS AND AWARDS

The Johansen Scholarship Fund of \$5,000, a gift of the late

Mrs. Johanna Johansen, provides a number of scholarships each year for the help of worthy students of Junior or Senior rank.

The One Thousand Dollar Liberty Bond Endowment yields a scholarship of \$40, which is to be awarded by the Director's Council to a student who has made formal application before April 2, and who has need of financial help, and who has demonstrated a high degree of scholarship in the work of previous terms.

The U. A. C. Faculty Women's League endows the Institution with a fund of \$50, to be given annually as a scholarship to a worthy and deserving student of the Department of Home Economics.

The Lois Hayball Medal is to be awarded annually to a Junior or Senior student in the School of Home Economics on the following basis:

- (a) Qualities of womanhood
- (b) Evidence of application of Home Economic principles in every relation of daily life.
- (c) Proficiency in scholastic attainments.

The Thomas Medal, a gift of Professor George Thomas, is given each year to winners of the inter-class debating series.

The Hendricks Medal, a gift of Professor George B. Hendricks, is awarded yearly to the student who delivers the best extemporaneous speech.

The Casto Medal, a gift of Professor George D. Casto, is presented annually for the best memorized speech.

The Sons of the American Revolution award a medal annually for the best patriotic speech.

Scholarship A's are given at the close of each year to the six highest ranking students.

A list of the recipients of various honors will be found at the back of the catalog.

Several further awards are given for athletic and other student-body activities.

BUILDINGS AND EQUIPMENT

The College now has nearly thirty buildings, all modern, well lighted and heated, and all carefully planned.

THE MAIN BUILDING is 360 feet long, 200 feet deep in the central part, and four stories high. It contains the large auditorium, seating about 1,500; the administrative offices; the library, and many class rooms and laboratories.

THE WOMEN'S BUILDING is one of the largest and best equipped structures devoted entirely to domestic science and arts in the inter-mountain region.

THE THOMAS SMART GYMNASIUM is one of the finest and most complete college gymnasiums in the Rocky Mountain region. It contains a main exercise hall, 114 by 70 feet, the equipment of which can be quickly put in place or hoisted out of the way, to suit any need. Ten feet above the main floor is a running-track, a hand-ball court, and a wrestling and boxing room. The large pool, shower and steam baths, and dressing rooms with steel lockers, are ideal.

THE EXPERIMENT STATION is a two-story brick structure 45 feet long and 35 feet wide, containing the offices of the station staff, a reading room, and a dark room for photography.

THE MECHANIC ARTS BUILDING, a two-story brick structure, has a floor area of 40,000 square feet, and contains the wood-working department, machine shop, forging rooms, foundry, carriage building rooms, mechanic arts museum, drafting rooms, blue-printing room, room for painting and staining, and class rooms,—all well equipped.

Since this building is also the home of the Department of Agricultural Engineering and Farm Machinery, it contains laboratories specially equipped for such work. The drawing rooms and shops of the Mechanic Arts department are accessible to students in agricultural engineering.

THE THREE-STORY CHEMISTRY BUILDING, thoroly modern

in plan and equipment, is occupied by the Departments of Chemistry, Physics, and Bacteriology.

THE NEW LIVE-STOCK BUILDING of three stories is exceptionally well fitted with facilities for the study of dairying, hog, horse, and sheep husbandry, and range management.

THE BARNS contain the various breeds of cattle, horses, sheep and hogs most common in the western section.

THE STOCK JUDGING PAVILION makes it possible to do judging in all kinds of weather.

THE POULTRY YARDS are equipped with various types of buildings to accommodate about one thousand fowls; a brooder house with a capacity of 2500 chicks, and a modern incubator cellar with standard incubators of several makes and designs. The laboratory is well supplied with different styles and sizes of incubators, brooders, feed hoppers, etc., suited to use in study of the management of large and small flocks.

THE GREENHOUSES are prepared for laboratory instruction in the propagation of horticultural plants, and in the practice of floriculture and vegetable gardening.

THE VETERINARY HOSPITAL contains a well-equipped dispensary, operating room, and stalls for patients.

EQUIPMENT

The Bacteriological Laboratory is well equipped with modern apparatus. To encourage careful work, the students are provided with individual lockers.

The Chemical Laboratories are modern and thoroly equipped.

The Physical Laboratory Equipment is complete, consisting of all the necessary apparatus for class demonstration. Gas, compressed air, continuous and alternating current electrical power, etc., are available.

The Physiological Laboratory is supplied with an excellent collection of native animals, skeletons, both articulated and disarticulated, many enlarged models of organs, a *papier mache* manikin, and complete slides of all the tissues.

The Zoological and Entomological Laboratory is equipped with water and gas, improved instruments, embryological models, skeletons from the vertebrate groups, collections of mounted birds, mammals, reptiles, fishes, and insects.

The Botanical and Plant Pathological Laboratory is well equipped for general work as well as for research. The department maintains a good working library in connection with the laboratory.

The Department of Agronomy is provided with a large collection of agricultural plants, seeds, and soils, representing the main crops and types of soil of the inter-mountain region.

The College farms are equipped with the best and latest implements and machinery for carrying on work scientifically. They are divided, for illustrative and experimental purposes, into numerous plats on which many varieties of farm crops are grown, and upon which important experiments are carried on.

The soil physics laboratory has a good supply of apparatus for accurate and up-to-date work.

The farm crops laboratory, equipped with gas, has a large supply of farm crops on hand and is well supplied with apparatus.

The Commercial Rooms, occupying the entire third floor of the front of the Main building, are specially designed and furnished for business. The room for typewriting contains a full complement of standard machines.

The College Museum contains many specimens illustrative of geology, mineralogy, paleontology, and vertebrate and invertebrate zoology, including a large series of the insects of the inter-mountain region; also an extensive series of plants of the western highlands. An extensive collection of grains represents the produce of Utah and other states. Contributions of fossils, ores, animals, plants, relics, or other material of value to the museum, are appreciated. All gifts are labeled and preserved, and the name of the donor is recorded.

The Art Rooms, composed of six studios, are supplied with plain and adjustable tables, easels and model stands, individual

lockers, cases for materials, casts from the old masters in sculpture, reproduction of great paintings, still-life models and draperies, as well as with a valuable collection of ceramics, textiles, and books on art.

The rooms are further supplied with a kiln for china firing, and equipment for work in ceramics, pottery, art leather, art metal, and jewelry.

The Library occupies the entire front of the second floor of the Main building, and contains about 30,700 bound volumes and a large number of pamphlets. The books are classified by the Dewey decimal system, and there is a complete dictionary card catalog. The shelf list, also on cards, forms a classed catalog for official use.

The library, a depository for United States public documents, receives practically all material printed by the government. The files of the U. S. Agricultural Department and the publications of the State Experiment Stations are nearly complete; the bulletins are bound, and made easy of access by the printed card catalogs. There are one hundred and twenty-five periodicals on the subscription list, besides about eighty which are received as exchanges for the publications of the College and of the Experiment Station. Thirty-five newspapers of the State are regularly received and placed on file in the reading room.

The land occupied by the College embraces about 142 acres. Of this, thirty-five acres constitute the campus, laid out with flower-beds, broad stretches of lawn, tennis courts, wide drives and walks.

Immediately east of the Main building are the parade grounds and the old athletic field, of about ten acres. The Adams athletic field is one-fourth miles west of the campus. The farms comprise 97 acres; the orchards and the small fruit and vegetable gardens, 10 acres.

Other farms are maintained, under the direction of the Experiment Station, in various parts of the State.

The equipment of the Branch Agricultural College is described in the circular of that institution.

THE EXPERIMENT STATION

THE AGRICULTURAL EXPERIMENT STATION is a department of the College, supported by Federal and State appropriations, supplemented by the receipts from the sales of farm products. The Station was created for the purpose of discovering new truths that may be applied in agriculture, and for making new applications of well-established laws. Essentially devoted to research, it does the most advanced work of the College.

The Station is not, in the ordinary sense, an institution where model farming is carried on. It has a much higher purpose. The practices of the farmer are subjected to scientific tests, in order to determine why one is bad and another good. Acting on the suggestions thus obtained, the scientists begin new investigations, in the hope that truths of great value to the farmer may be discovered.

The Station confines its efforts as far as possible to the particular problems of the inter-mountain region. Irrigation, the foundation of western agriculture, has received greatest attention. Elaborate experimental plats have been equipped, where the value of different quantities and methods of application of water have been studied and the underlying principles brought out.

Dry-farming problems are only second in importance to those of irrigation in the development of the West. A number of experimental dry-farms are maintained on which every effort is made to increase production. Many of the present investigations involve the water-holding capacity of soils, the water requirements of crops, the movement of plant foods, and other questions fundamental to all systems of agriculture.

Other problems vitally affecting the agricultural West are under investigation. Breeding experiments for the improvement of sugar beets, dry land grains, alfalfa, and poultry are in prog-

ress. Studies of insect pests and plant diseases affecting western crops and orchards have received consideration. The problem of producing fruit free from worms has been practically solved. The control of the alfalfa weevil is one of the present problems. The development of better cropping methods, care and feeding of livestock, the development of the dairy industry, and the general betterment of western agricultural conditions are among the problems the Station is attempting to solve.

State appropriations are granted under provision that the arid experiment farms be maintained and that work in irrigation and drainage, and the study of the alfalfa weevil, be continued. Publications of the Station are also provided for. Bulletins containing the results of experimental work, circulars containing timely and practical information on various subjects, an annual report,—these constitute the publication of the Station. The bulletins and circulars are published at irregular intervals.

The Experiment Station has a high educational value. Nearly all the staff are also members of the College faculty; the students, therefore, receive at first hand an account of the methods and results of the work of the Station, as well as training in their application. The opportunities that the Station offers for advanced work in several branches of science are of great importance. The scientific method and spirit characterize all its operations, and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station is always glad to assist the advanced students in any investigation they wish to undertake.

THE EXTENSION DIVISION

Organized for the purpose of disseminating all the work of the College among the people of the State, as far as practicable, and for the further purpose of beginning new work outside the College, which may be of service to the people of the State, the Division serves two purposes: it carries an organized instruc-

tion in the various subjects included in the College curriculum; and it performs personal and community service of a more directly practical nature. The Extension Division is the joint representative in Utah of the United States Department of Agriculture and the Utah Agricultural College.

ADMINISTRATIVE DEPARTMENTS

The Extension Division, in its administration, is divided into departments, as follows:

- I. Farm Management Extension
 - 1. Farmers' Institutes and Schools
 - 2. Farm Demonstrations (County Agent work)
 - 3. Farm Management Demonstrations
 - 4. Specialists
- II. Home Management Extension
 - 5. Housekeepers' Institutes and Schools
 - 6. Home Demonstrations
- III. Junior Vocational Extension
 - 7. Boys' and Girls' Clubs
 - 8. High School Clubs
- IV. Correspondence Studies
- V. Miscellaneous
 - 9. Trains, Fairs and Exhibits
 - 10. Community Service Bureau
 - 11. Publications

The departments of Farmers' and Housekeepers' Institutes and Schools conduct meetings among the farmers and housewives of the State. These meetings may be single, called institutes; or they may be organized courses of study in one or many subjects, called schools. In the schools, the field of instruction is broad, based largely upon existing courses of instruction in the College. At present the following courses of instruction are emphasized because of their immediate relation to the needs of the State: agronomy, agricultural economics, agricultural engineer-

ing, animal husbandry and dairying, entomology, home economics, horticulture, irrigation, poultry husbandry, and veterinary science. As the work develops the field of instruction may be enlarged to include all the courses given in the institution which are adaptable to extension instruction.

Farm and Home Demonstration includes the work of the county demonstrators, also called agents, and that of the extension specialists. These travel from farm to farm and from home to home teaching such facts, principles, and practices of modern agriculture and home science as seem needed in the development of the districts assigned. The demonstrator co-operating with the experts at the College and those of the United States Department of Agriculture, is a member of the extension faculty in agriculture and home economics.

The work in Farm Management Demonstrations emphasizes the business side of farming. Farmers are taught how to analyze their business, how to keep proper accounts, and how to summarize their work at the end of the year to determine profit or loss.

Boys' and Girls' Clubs and High School Clubs, conducted co-operatively with the United States Department of Agriculture, interest boys and girls in agriculture, home economics, and other industrial subjects, and serve the parents of the State in supplying work of great intellectual and practical value for their sons and daughters. This department is affiliated with public schools, church organizations, and existing organizations of boys and girls. Contests are conducted in the growing of potatoes, sugar beets, mangel wurzels, cabbages, onions, peas, tomatoes, cucumbers, celery, poultry, corn and pigs and in the making of bread, in canning, sewing, in the arts and crafts, etc. The competition is arranged first among members of the same club; then among the champions of the clubs in the county; and finally, among the champions of all the counties. A State champion boy and girl are thus selected each year. To promote the work, various prizes are offered.

Associations of women, work thru the women's organizations of the State—civic, religious, or literary—and organize groups of girls and women for study of home economics. Monthly study outlines, or home economic leaflets, are issued by the Extension Division for the use of the home economics associations. Other women's organizations in the State are helped in their educational and home work, by special lectures, supplying reading matter, suggestions for organization, and study outlines.

THE CORRESPONDENCE-STUDY DEPARTMENT. One of the recent developments of college organization is the establishing of correspondence-study departments, in order to extend its activities to the fireside.

Correspondence-study furnishes an excellent opportunity for systematic instruction to the student preparing for high school or college, the teacher, the professional or business man, club woman,—to all who cannot leave home.

Admission to Correspondence Work. Students must be eighteen years of age or graduates of the public school.

Scope. Courses offered:

1. Academic studies which, under certain restrictions, count towards a degree.
2. Practical studies designed to advance men and women in a given occupation.
3. Reading Courses for the farmer: short, practical, non-credit courses in agronomy, animal husbandry, horticulture, farm machinery, bee-keeping, etc.
4. Reading Courses for the housewife: short, practical, non-credit courses in sanitation, home management, cooking service, sewing, home decoration, home care of the sick, etc.
5. A preparatory or high school course.
6. Preparatory or grade studies.

Special bulletins of the correspondence-study department will be mailed to any one interested.

The purpose of the Department of Trains, Fairs and Exhibits

is to conduct trains in co-operation with the railroads; to encourage county and other fairs by supplying organization and exhibition outlines, lectures, premium lists, and judges of exhibits. On various other occasions the Extension Division supplies material for exhibition.

The work of the Community Service Bureau, designed to help Utah towns and villages in community celebrations, club work, and school life, includes (a) play service, (b) club service, (c) community service, (d) debate service, and (e) library service.

Publications of real value to the rural communities are issued in the form of circulars, as occasions demand.

COLLEGE PROPER

ORGANIZATION

For the purpose of efficient administration, the instruction on the campus or in the College proper is divided into seven schools: (1) The School of Agriculture; (2) The School of Home Economics; (3) The School of Agricultural Engineering; (4) The School of Commerce; (5) The School of Mechanic Arts; (6) The School of General Science; (7) The Summer Quarter.

The School of Agriculture offers a four-year college course with opportunity to major in agronomy, horticulture, animal husbandry and dairying, agricultural chemistry, bacteriology, plant pathology, veterinary science, or economic entomology.

The School of Home Economics offers a four-year college course with opportunity to major in foods and dietetics, household administration, institutional management, or textiles and clothing.

The School of Agricultural Engineering offers a four-year college course with the opportunity to major in irrigation and drainage, farm mechanics, agricultural surveying, roads, rural architecture, rural sanitation, and agricultural technology.

The School of Commerce and Business Administration of-

fers a four-year college course with the opportunity to major in accounting, economics, political science, sociology, finance and banking, and history.

The School of Mechanic Arts offers, in addition to shorter trade courses, a four-year college course in mechanic arts, with the opportunity to major in woodwork, iron work, and machine work.

The School of General Science offers a four-year college course in general science.

The Summer Quarter offers instruction during twelve weeks of the summer, after the regular term has closed, in most of the subjects taught during the winter.

Each school also offers *Practical Year and Winter Courses* which may be taken by mature students fitted to follow them

For *Normal Training*, see index.

THE SCHOOL OF AGRICULTURE

Agriculture is one of the most promising of modern professions. It is growing very rapidly, and owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. On the contrary, the freedom, health, intellectual activity, and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and other western states are offering excellent opportunities to those who prepare themselves for scientific farming. There is a great demand for men who can supervise large farm enterprises; there is a greater demand for men who can act as experts, experimenters or teachers in the schools and other institutions in the State and National Government. The supply of such men does not equal the demand.

Experience having shown that practically all of the students who take agriculture come from the farms, it is assumed that they are acquainted with the various manual operations of farm

work. The design of the school is, therefore, to teach the sciences that underlie practical agriculture, and to offer sufficient supplementary studies to develop the agricultural student to the intellectual level of the educated in the other professions. The agricultural courses are planned to lay a foundation upon which the student can build a successful career as a farmer or develop into a specialist in agriculture.

The general and departmental libraries enable the student to become acquainted with a wide range of agricultural and related literature; the laboratories of the College and the Experiment Station afford opportunity for training and experience not obtainable from books alone.

For subjects in which the student may major or minor see Required Work for Graduation.

THE SCHOOL OF HOME ECONOMICS

The steady growth of Household Economics courses in leading colleges and universities indicates the ever-increasing realization that the well-conducted home is the most important factor in the development of healthful and capable citizenship. But the multiplying complexities of modern life demand further that those in charge of the family understand much that is beyond the exact limits of the home. Hence the stress laid on the study of childhood and adolescence, the causes underlying the high-cost of living, and the problems of social, industrial, and civic life.

The State of Utah wisely introduced courses in home management when the College was first organized, and the support which has been accorded to the work by the public shows the wisdom which prompted this provision.

Year by year increased facilities have become available for the students in the School of Home Economics, and the most recent addition to its efficiency, namely, the College Practice House, testifies to the sustained faith of the Board of Trustees in this department of College activity. Groups of six students reside in the Practice House for successive six weeks' periods, during

which they have the opportunity to test out the practical worth of the studies carried on in the Woman's Building under the supervision of skilled experts.

It is now proposed to extend considerably the courses, which have been maturing gradually so that students in the School of Home Economics can in future select the special line of work which offers them the strongest attraction, or for which new openings now present themselves. The student who desires to graduate in Home Economics can specialize during the last two years of her four year course, either as a Teacher, as heretofore, as an Institutional Manager, or as an Expert in Domestic Art, which would qualify her for employment in design, decoration, or other branches of the subject. There will be a specially arranged one-year course of a very practical nature for those who cannot afford to devote more than three terms to equipping themselves as efficient home makers, and a special feature will be made in future of Vocational and Junior College courses. These courses are planned to provide the basis for other occupations than that of housekeeper. The many developments of the day, sanitary, economic, industrial, and social, call for women competent to manage institutions of various orders,—hospitals, asylums, social centres—to safeguard the welfare of children in many capacities; to superintend officially occupations of all kinds in which women and young persons are employed; to serve as sanitary inspectors, as welfare workers, as health visitors, as well as to qualify for dressmaking, millinery, or as experts in the domestic arts of cooking and needlework. There are openings for women as architects, household decorators, designers of artistic dress, furnishing and furniture, besides the ever-widening field of opportunity for service in philanthropic and social activities.

The resources of the Practice House and of the College Cafeteria will be at the disposal of these students, and Certificates of Efficiency will be granted at the completion of a two years' course of systematic study.

THE SCHOOL OF AGRICULTURAL ENGINEERING

The rural problem has many phases. An adequate and self-perpetuating country life cannot be made simply by teaching people how to raise grain and fruit, and how to manage and improve livestock. The country might be filled with farmers well trained in these branches and still lack many of the elements necessary for a well-balanced and efficient rural community. Many problems having to do with the entire community rather than with the individual farmer must be solved by men with training for that kind of work rather than by those trained to produce crops and livestock on a single farm. Again, many questions on the individual farm have to do with construction rather than with production from the soil. These questions can be properly answered only by men with special training.

In the past, agricultural colleges have given their attention to the direct questions of farming, but now the entire rural problem must be met. The farm must be a desirable and healthful place to live. The buildings must be so arranged and constructed as to give the maximum of efficiency and comfort and at the same time have proper sanitary provision. The rural roads must be such that the farmer can move his crops with small expense, and go to town with comfort and speed. The machinery of the farm must be so constructed and cared for that it will be reliable and work economically. The limited supply of irrigation water must be so used as to produce maximum returns. There must be factories to change the raw materials of the farm into high-priced finished products. All these necessities demand men trained for them.

To meet the demand, the College has organized a School of Agricultural Engineering designed to enable men to solve all but the most technical engineering problems of an entire rural community. The courses are very helpful to the farmer who does not wish to do the work of a trained engineer.

Students may major in irrigation and drainage, farm mechanics, agricultural surveying, farm and public roads, rural architecture, rural sanitation and public health, agricultural technology, and art. These courses all lead to the degree of Bachelor of Science.

THE SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION

The purpose of the School of Commerce is to give opportunity for a liberal education with special emphasis upon the commercial and industrial phases of life. Persons who complete the commercial courses are prepared to assume leadership and responsibility in business and in various industries and professions. In order to meet the growing demands and to keep pace with recent tendencies in business education, students may major in economics, political science, sociology, accounting, finance and banking, and history.

In addition to these college courses, vocational courses are offered.

For the professions of law and medicine, the commercial courses afford excellent preparation. Graduates are prepared for positions as teachers in commercial schools. The demand for qualified teachers is greater than the supply, and many desirable positions as industrial managers are open to those who are qualified.

The European War has created an intense demand for men trained in foreign service and foreign trade. The Federal Bureau of Education has requested all colleges of the country to offer courses in preparation for such service. Accordingly, the School of Commerce and Business Administration has outlined a four years' course designed to fit students for foreign trade and diplomatic service. Especial emphasis will be placed on our South American commerce.

THE SCHOOL OF MECHANIC ARTS

This school offers three-year trade courses in contracting and building, and forging and carriage work, and automobile repairing; a two-year trade course in painting and interior decoration; and a four-year college course leading to the degree of Bachelor of Science. These afford opportunity for persons endowed with mechanical ability, to develop their powers, and to enjoy working where nature intended. The life of the trained mechanic is as free as any, and his efforts bring good wages.

The information offered finds application in every industrial activity, and is much demanded by the rapid growth in the mechanical and industrial pursuits. As more and more of the work of man is done by machinery and labor-saving devices, it is desirable to obtain information that will enable him to meet the new conditions intelligently. The many applications of electricity and gas power in the factory, shop, home, and on the farm, and the advent of the automobile demand a knowledge of materials, tools, machines, and processes.

The agricultural student can obtain in the School of Mechanic Arts just the information he needs to enable him to do the constructive work in farm buildings, and the repair work necessary in operating machinery, thereby making farm life more profitable and desirable. Those who intend to enter engineering will find no better preparation than that offered in the mechanic arts courses. In the shops a knowledge of the nature of materials, methods of construction, and operation of machinery, can be had better than elsewhere. The demand for manual training teachers is far in advance of the supply.

The drafting rooms give thoro work in the methods of making mechanical drawings, and afford opportunity to specialize in the line of work the student is pursuing; such as, architectural, carriage, machine, and agricultural drawing.

Students may major in wood work, iron work, machine work, and art. Vocational courses are also offered.

All products of the shop are the property of the school, students being allowed to take away specimens of their work only by permission.

THE SCHOOL OF GENERAL SCIENCE

To carry out the work of the several technical schools of the College, an efficient instructing force and a complete modern equipment have been provided in the natural and physical sciences, as well as in English, mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years, and admitting of specialization later. Such courses constitute the work of the School of General Science, and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science.

Upon completion of four years' work in general science, students receive the degree of Bachelor of Science in General Science.

For subjects in which students may major or minor, see Requirements for Graduation.

SUMMER QUARTER

The College maintains, as an integral part of its work, a summer session, beginning early in June, and continuing for twelve weeks, divided into two terms of six weeks each. Every department of the College is represented, the courses of instruction being arranged to meet the particular needs of summer students. For the benefit of teachers, special courses are provided in addition to the regular work of the College. Students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is available for

the summer session, and every care is taken to preserve the standard and the spirit of the College. No admission requirements are prescribed, but students in all departments are directed by instructors to those courses in which they may pursue work to the best advantage. Arrangements have been made with the State Board of Education to accept summer quarter credits in individual subjects in lieu of examination. An entrance fee of \$6 is charged. Board and rooms can be secured thruout the city at the usual prices. The special summer quarter circular will be sent on request.

NORMAL TRAINING. For the purpose of providing specially trained teachers of domestic science and arts, agriculture, and mechanic arts, arrangements have been made whereby the graduates of the Normal School of the State University may enter the degree courses of the Agricultural College and there obtain technical work in home economics, agriculture, and mechanic arts. All the work done in the State Normal School is credited the candidates for the professional degree.

Graduates from the degree courses in home economics, agriculture, mechanic arts, commerce and general science, of the Agricultural College, are given the normal certificate upon the completion of one year of professional work at the State Normal School.

SCHEDULE OF WORK REQUIRED FOR GRADUATION

A student must present 15 units of high-school work for entrance, and complete 180 term hours of college work before receiving his diploma.

GROUP REQUIREMENTS. The 180 hours of college work required for graduation must be distributed according to the following plan:

Twenty-four hours, forming a major, must be in one department. A minor of 18 hours must be chosen in the same School. This is the so-called *technical* work. Besides this, 96 hours of general work must be chosen from certain specified groups. The remaining 42 hours are elective. These requirements are shown in tabular form as follows:

SUMMARY OF REQUIREMENTS FOR GRADUATION

(In Term Credit Hours)

Technical Division

Major Subject	24 hours
Minor Subjects (must be in same school as the major subject)	18 "

General Division

Biological Science Group.....	18 "
Exact Science Group.....	18 "
Language Group	24 "
Social Science Group.....	18 "
Special Electives (groups to be chosen by Director of school in which student is registered).....	18 "
Electives	42 "

Total.....180 hours

The departments from which major and minor subjects may be elected are grouped as follows:

REQUIRED WORK

Technical Division

Major, 24 hours in one department.

Minors, 18 hours in some other department or departments of the same school.

SCHOOL OF AGRICULTURE

Agronomy	Chemistry
Animal Husbandry	Dairying
Art (minor only)	Entomology
Bacteriology	Horticulture
Botany and Plant Pathology	Veterinary Science

SCHOOL OF AGRICULTURAL ENGINEERING

Art	Irrigation and Drainage
Agricultural Surveying	Roads
Agricultural Technology	Rural Architecture
Farm Mechanics	Rural Sanitation

SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION

Accounting and Business	Finance and Banking
Practice	Political Science
Art (minor only)	Sociology
Economics	Stenography (minor only)
History	Typewriting (minor only)

SCHOOL OF HOME ECONOMICS

Art (minor only)	Household Administration
Domestic Art	Music (minor only)
Foods and Dietetics	

SCHOOL OF MECHANIC ARTS

Art	Machine and Automobile Work
Iron Work	Wood Work
Mechanical Drawing	Technology of Mechanic Arts

SCHOOL OF GENERAL SCIENCE

Art	History
Bacteriology	Library Work (minor only)
Botany	Mathematics
Chemistry	Music
English	Physics
Entomology	Physiology
Foreign Languages	Zoology
Geology	

The departments from which the general subjects may be elected are grouped as follows:

REQUIRED WORK

General Division

BIOLOGICAL SCIENCE GROUP (18 hours)

Bacteriology	Physiology
Botany	Veterinary Science
Entomology	Zoology

EXACT SCIENCE GROUP (18 hours)

Accounting	Mathematics
Chemistry	Physics
Geology	Surveying

LANGUAGE GROUP (24 hours)

English	Latin
French	Spanish
German	

SOCIAL SCIENCE GROUP (18 hours)

Economics	Political Science
History	Sociology
Finance and Banking	

SPECIAL ELECTIVES (18 hours)

ELECTIVES (42 hours)

VOCATIONAL COURSES

Vocational courses in agriculture, home economics, mechanic arts, and commerce have been added to the regular work of the

school. In these, emphasis is given subject matter which can be put to immediate and practical application on the farm, in the shop, in business, or in the home.

No scholastic prerequisites are required for entering the vocational courses except that the student must have completed two years of high school work, or be over eighteen years of age.

Various vocational courses offered by the different schools of the College follow. For full description of them see departments concerned. All courses lettered "a," "b," "c," etc., are strictly vocational. Most of the elementary courses of college grade may be entered (by vocational students), however, after consultation with the head of the department.

For full description of them see departments concerned. Various sequences of courses for which certificates of proficiency will be granted when satisfactorily completed are outlined here:

AGRICULTURE

<i>Fall Term</i>	<i>Winter Term</i>	<i>Spring Term</i>
Farm Management Horticulture	Agronomy Animal Husbandry Botany Entomology Horticulture Poultry Husbandry Veterinary Science	Horticulture

COMMERCE

Accounting Economics Political Science Stenography Typewriting	Accounting Economics Political Science Stenography Typewriting	Accounting Political Science Stenography Typewriting
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HOME ECONOMICS

Foods Household Administration Textiles and Clothing	Foods Household Administration Textiles and Clothing	Foods Household Administration Textiles and Clothing
--	--	--

MECHANIC ARTS AND AGRICULTURAL ENGINEERING

Automobiles
Carpentry
Forging

Automobiles
Carpentry
Forging
Irrigation and
Drainage

Carpentry
Forging

GENERAL SCIENCE

English
History
Mathematics
Physics

Bacteriology
English
History
Geology
Mathematics
Physics

English
History
Mathematics
Physics

Following are outlines of vocational courses arranged in sequences, upon the completion of which students will be granted a certificate signed by the Director of the School to indicate the time spent and the degree of proficiency attained.

SUGGESTED COURSE FOR STENOGRAPHERS AND TYPEWRITERS

First Year

Accounting a.—El. Bookkeeping.
Accounting b.—Int. Bookkeeping.
English b.—El. Business English.
Stenography a.—Beginning course
in Stenography.
Typewriting a.—First course in
Typewriting.

Mathematics c.—Arithmetic.
History a.—Ancient and Medieval
Civilization.
History b and c.—Modern Civil-
ization.

Second Year

Accounting c.—Advanced Book-
keeping.
English 7.—Business English.
Stenography b.—Second course in
Stenography.
Typewriting b.—Advanced course
in Typewriting.
Mathematics 2.—El. Analysis.

Political Science a.—El. Commer-
cial and Business Law.
Economics a.—Economics of Bus-
iness.
Economics b.—El. Business Or-
ganization.
Economics c.—El. Business Fi-
nance.
Political Science b.—Civics.

SUGGESTED GROUP OF COURSES FOR ONE-YEAR STUDY OF HOMEMAKING

Foods a, (Household Cookery).	Household Ad. d, (Art in the Home).
Textiles and Clothing b, c, (Sewing and Dressmaking).	Household Ad. f, (Practice Housekeeping).
Household Ad. a, (Practical House Management).	General Elementary Science.
Household Ad. b, (Care of Human Life in the Home).	

SUGGESTED GROUPING OF SUBJECT MATTER FOR TWO- YEAR COURSES

- | | |
|--|--|
| (1) Cafeteria Management. | (4) Visiting Housekeepers, |
| (2) Laundry, Bakery or Canning Management. | or |
| (3) Salesmanship. | (5) Social Science and Housecraft (for voluntary workers). |

First Year

Foods a (Household Cookery), (1), (2), (3), (4), (5).	Life in the Home) (1), (2),
Textiles and Clothing b (Sewing and Textiles) (3), (4), (5).	or
Textiles and Clothing c (Dressmaking) (3), (4), (5).	Household Ad. e (Home Nursing) (4), (5).
Textiles and Clothing d (Textiles and Clothing) (3).	Household Ad. f (Practice Housekeeping) (4),
General Elementary Science (1), (3), (4), (5),	or
or	Household Ad. d (Art in the Home) (4), (5),
Inorganic Chemistry (2), Organic Chemistry 18 (2).	or
Household Ad. a (Practical Housekeeping) (4), (5),	Sociology (1), (5),
or	or
Household Ad. b (Care of Human	Bookkeeping a (1), (2), (3).
	Bookkeeping b (1), (2), (3).
	Sanitation (Bacteriology a) (1), (2).
	Typewriting 1, (1), (5).

Second Year

Foods b (Cafeteria Management and Practice) (1), (2).	Textiles and Clothing 3 (Millinery) (4), (5); elective.
Foods c (Food Economics) (1),	Textiles and Clothing 4 (Handwork and Weaving) (4), (5);
or	elective.
Textiles and Clothing 2 (Textile Fabrics) (4), (5); elective.	

Textiles and Clothing e (Textile Fabrics) (3).	or	Physics (2), or Chem. 19 (Food Analysis) (2); elective,
Art 22a (House Furnishing and Decoration) (3).	or	Chemistry of Textiles (2).
Art 25 (Interior Design and Decoration) (1).		Household Ad. c (Management of Institutions) (2).
Bacteriology a (Sanitation and Public Health) (4), (5).		Household Ad. 7 (Institutional Laundry) (2).
Acct. and Bus. Practice 1 (1), (2), (3).		Economics a (3).
Acct. and Bus. Practice c (3).		Applied Sociology (4).
Acct. and Bus. Practice a (5).		Elementary Bookkeeping a (5).
Typewriting 1 (2).		Accounting and Banking a (1).
Rural Sociology (4).		Salesmanship 1 (1), (2).

COURSE UNDER THE SMITH-HUGHES ACT.

Suggested Course in Agriculture for Students Preparing for Teachers in Agriculture under the Smith-Hughes Act.

Freshman Year:	I	II	III	Sophomore Year	I	II	III
Chemistry	5	5	5	Physics	3	3	3
Botany	5	5	5	Elocution	3	3	
English	2	2	2	Zoology	5		
Agronomy (Crops) 3	3	3	3	Anatomy		5	
Horticulture	2	2	2	Physiology			5
	<u>17</u>	<u>17</u>	<u>17</u>	Psychology			5
				Veterinary Science 5			
				Animal Husbandry		5	3
					<u>16</u>	<u>16</u>	<u>16</u>
Drill	1	1	1	Drill	1	1	1
Physical Ed.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	Physical Ed.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Junior Year:	I	II	III	Senior Year:	I	II	III
Geology	5	5		Farm Management 5			
Agronomy (Soils) 5	5			Plant or Animal			
Irrigation	5			Breeding		5	
Feeds and Feeding			5	Dairying			5
Economics	3	3	3	Methods Teaching			
Science of Ed.			5	Agriculture	5		
English		5		Rural Education .	5		
Farm Mech.	5			Teacher Training.		5	
Bacteriology			5	Farm Buildings ..	3		
	<u>18</u>	<u>18</u>	<u>18</u>	Surveying			3
				Critic Work		3	
				Secondary Ed. ...			5
				Elective		5	5
					<u>18</u>	<u>18</u>	<u>18</u>
Drill	1	1	1	Drill	1	1	1

TRADE COURSES

Three year courses, to prepare students for a trade, are given in the following lines of work: carpentry, forging, machine and automobile work, and in interior decoration. Two year courses are given in the following lines of work: show card and sign writing, art metalry, china painting, and fabric decoration.

Students wishing to prepare for a trade in any of the above lines should make arrangements with the heads of departments concerned, and on completion of the work outlined will receive a letter of recommendation, upon the approval of the College Council.

RELATION BETWEEN U. OF U. AND U. A. C.

The University of Utah and the Agricultural College of Utah are the two institutions maintained by the State for the higher education of its citizens. They have been assigned separate and sharply defined parts of the field of human knowledge. The laws defining these divisions are printed below.

In spite of the existing laws, much misunderstanding exists as to the work that may be done by either of these institutions. To set doubts at rest, the agreement printed below, which is merely an interpretation of the law, has been ratified by the Board of Regents of the University of Utah and by the Board of Trustees of the Utah Agricultural College.

To the Agricultural College, alone, has been assigned the collegiate work in all branches of agriculture, irrigation, agricultural engineering, home economics, including domestic science and art, commerce, and mechanic arts. To do properly the work thus assigned, first class departments must be maintained in practically all of the arts and sciences. All the work of the Agricultural College is, however, done with a view to its application in the fields belonging to the College. Moreover, the College is the conservator, as far as an educational institution may be such, of

the industrial development of the State, excluding pure engineering and normal work, which are specifically assigned to the University of Utah.

STATE LAWS RELATING TO THE WORK OF THE TWO INSTITUTIONS

2292. Courses of Study in the University. The University, until otherwise provided for by law, shall be the highest branch of the system of public education. As far as practicable its courses and methods shall be arranged to supplement the instruction of the subordinate branches of such system, with a view to afford a thoro education to students of both sexes in the arts, the sciences, literature, and the civil professions, including engineering; but the University must not include in its courses, agriculture, except elementary agriculture as is or may be prescribed in the normal course, horticulture, animal industry, veterinary science, domestic science and art, except as is or may be prescribed in the normal course, and instruction in irrigation as applied to the measurement, distribution, and application of water for agricultural purposes. Approved March 9, 1911.

2087. Courses of Study in the Agricultural College. The courses of instruction in the Agricultural College, until otherwise provided by law, shall comprise agriculture, horticulture, forestry, animal industry, veterinary science, domestic science and art, elementary commerce, elementary surveying, instruction in irrigation as applied to the measurement, distribution, and application of water for agricultural purposes, for which a degree in engineering in agriculture may be given, military science and tactics, history, language, and the various branches of mathematics, physical and natural science, and mechanic arts, with special reference to the liberal and practical education of the industrial classes. But the Agricultural College shall not give courses in liberal arts, pedagogy, the profession of law or medicine, or engineering, except agricultural engineering. Approved March 9, 1911.

UNIVERSITY OF UTAH-AGRICULTURAL COLLEGE
AGREEMENT**Proposition 1**

The School of Education of the University of Utah shall give all the courses necessary to prepare teachers and supervisors in the elementary schools in all subjects taught in these schools; but the University shall not offer the technical work in agriculture and domestic science and domestic art, needed to prepare special teachers of these subjects in secondary schools. The University shall not offer advanced courses in agriculture, domestic science, and domestic arts; it may offer elementary courses in these subjects—high school courses—and educational courses, i. e., the methods of teaching these subjects.

It is understood that in these subjects courses suitable for third and fourth year high school students are also suitable for freshmen and sophomores in the college who have not had these courses. Such courses may be taught in the School of Education of the University, and students of college grade may receive college credit upon completion of these courses.

The Agricultural College shall not offer courses in education, but shall advise all students preparing to teach to come to the State School of Education to receive instruction and training in professional education subjects. The School of Education shall advise all students wishing to become special teachers of agriculture, domestic science, or domestic arts in high schools to go to the State Agricultural College for their technical work of college grade in these subjects.

Departments of Instruction

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Accounting and Business Practice 2. Agricultural Engineering <ol style="list-style-type: none"> a. Agricultural Surveying b. Roads c. Rural Architecture d. Rural Sanitation 3. Agronomy 4. Animal Husbandry 5. Art 6. Bacteriology and Physiological Chemistry 7. Botany 8. Chemistry 9. Correspondence Studies 10. Dairying 11. Economics 12. Elocution and Public Speaking 13. English 14. Entomology 15. Farm Management, Extension 16. Farm Mechanics 17. Finance and Banking 18. Food and Dietetics 19. Geology 20. History 21. Home Management, Extension 22. Horticulture 23. Household Administration 24. Irrigation and Drainage 25. Junior Vocational Extension | <ol style="list-style-type: none"> 26. Library Economy 27. Mathematics 28. Mechanic Arts <ol style="list-style-type: none"> a. Forging and General Blacksmithing b. Machine and Automobile Work c. Mechanical Drawing d. Technology of Mechanic Arts e. Woodwork and House-building 29. Methods in Experimentation and Extension 30. Military Science and Tactics 31. Modern Languages and Latin 32. Music 33. Pedagogy 34. Physical Education <ol style="list-style-type: none"> a. For Men b. For Women 35. Physics 36. Physiology and Physiological Chemistry 37. Political Science 38. Range Management 39. Sociology 40. Stenography and Typewriting 41. Textiles and Clothing 42. Veterinary Science 43. Zoology |
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RECITATION TABLE

The recitation periods, commonly known as hours, are fifty minutes in duration and begin at 8:00 a. m. The following shows the entire schedule:

1 hour, 8:00— 8:50
2 hour, 8:50— 9:40
3 hour, 9:40—10:30
4 hour, 10:30—11:20
5 hour, 11:20—12:10
6 hour, 12:10— 1:00
7 hour, 1:00— 2:00
8 hour, 2:00— 2:50
9 hour, 2:50— 3:40
10 hour, 3:40— 4:30

From 11:30 a. m. to 2 p. m. the cafeteria, or college restaurant, is open.

On Tuesdays, the seventh period (from 1:00 to 2:00) is devoted to chapel exercises; on Thursdays, to Student Body meetings. Military drill is held on Monday, Wednesday and Friday, 1:00 to 2:00. For class work in Military Science see the department.

Courses numbered a, b, c, constitute the work of the vocational courses, and are of high school grade; courses numbered 1, 2, 3, are of college grade.

ACCOUNTING AND BUSINESS PRACTICE

PROFESSOR P. E. PETERSON

VOCATIONAL COURSES

The aim in these courses is to develop the student quickly to assume positions as bookkeepers and office employees. Thorough drill in principles, and abundant practice in the making of entries

in modern books of account and in the preparation of statements are given.

Accounting practice periods extend thru the eighth, ninth and tenth hours daily. All accounting practice work should be done during these hours.

a. **ELEMENTARY BOOKKEEPING.** Thoro drill in the principles of double entry and in the preparation of financial statements. Two lectures, nine practice hours per week. Fall quarter. Course will be repeated during the Winter quarter. Five credits.

Lec. T. Th. 2:00, Fall quarter

Lec. T. Th. 8:50, Winter quarter

b. **INTERMEDIATE BOOKKEEPING.** A continuation of course "a." Bookkeeping for a wholesale business. Emphasis is laid on labor saving devices and analysis of statements. Two lectures, nine practice hours per week. Winter and Spring quarters. Ten credits.

Lec. T. Th. 2:00

c. **ADVANCED BOOKKEEPING.** Methods in such special business as banking, commission, real estate, railway stations, etc. Special opportunity will be given in the use of the various bookkeeping machines. Business practice with the school offices will be afforded. Full year course. Two lectures, nine practice hours per week. Fifteen credits.

Lec. M. W. 2:00

d. **FARM BOOKKEEPING.** A study of the elementary principles of bookkeeping and their application to the keeping of simple farm accounts. Two lectures, nine practice hours per week. Winter quarter. Five credits.

Lec. T. Th. 11:20

e. **OFFICE TRAINING.** Instruction in the use of the principal labor-saving office appliances. Five hours' practice work per week. Each quarter. Three credits.

(May be taken any hour of day)

JUNIOR COLLEGE COURSES

One of the results of recent commercial development has been the growth in importance of accounts to business men. A knowledge of accountancy is indispensable. Business efficiency and scientific management demand that accountants be more than mere bookkeepers. Men claiming professional standing in the accounting profession must be men of broad, fundamental training in the arts and sciences as well as in the technic of their profession.

The aim in these courses is to develop the student quickly to assume positions as bookkeepers and office employees. Thoro drill in principles, and abundant practice in the making of entries in modern books of account and in the preparation of statements are given.

Accounting practice periods extend thru the eighth, ninth and tenth hours daily. All accounting practice work should be done during these hours.

1a. BOOKKEEPING TECHNIC. A great number of students who enter the college have had no previous training in bookkeeping. In order that students shall be prepared to take up the work in principles of accounting it is necessary that they first receive a thoro grounding in the technic of bookkeeping. Three lectures, six practice hours per week. Fall quarter. Five credits.

Lec. M. W. F. 9:40

Professor Peterson

1b. PRINCIPLES OF ACCOUNTING. The fundamental principles that the accountant must use, that the manager must know in order to profit from his accounting staff, and that every investor must understand to interpret correctly financial reports. Prerequisite, course 1a or its equivalent. Three lectures, six practice hours per week. Ten credits. Winter and Spring quarters.

Lec. M. W. F. 9:40

Professor Peterson

2. SYSTEMS OF ACCOUNTS. A study of the leading accounting systems. Fall quarter devoted to building and loan, life and fire insurance, banking, trust companies and department stores; Winter quarter, to electric lighting companies, street railways, steam railways, municipal, and executor's accounts. Six hours' practice work a week. Ten credits.

(Not given in 1918-19)

9. OFFICE ORGANIZATION AND ADMINISTRATION. Study of how to lay out office work, simplify filing, keep account of stores, record progress of employees, reduce fatigue and avoid congestion of work. Three lectures per week. Spring quarter. Three credits.

Lec. M. W. F. 10:30

SENIOR COLLEGE COURSES

4a. COST THEORY. The Fall quarter a study will be made of the underlying principles of costs which may be applied in practice in accordance with the needs of any situation. As practice work a complete cost set will be worked out. Five credits.

(Not given in 1918-19)

4b. COST PRACTICE. Typical cost systems with abundant practice in the formulation of systems and in the working out of special methods suitable to different lines of industry. Nine hours' practice work. Five credits.

(Not given in 1918-19)

6. AUDITING. Auditing and investigations. Study of principles and methods. Balance sheet and detailed audits. Auditing practice. Three lectures per week. Full year course. Five credits.

Lec. M. W. F. 11:20

Professor Peterson

7. HOUSEHOLD ACCOUNTS. The practical application of accounting principles to home problems. Nine hours' practice work. Spring quarter. Five credits.

Lec. T. Th. 10:30

Professor Peterson

8. FARM ACCOUNTING. Applications of the principles of accounting to the needs of the farming business. Three lectures, nine hours' practice per week. Fall quarter. Five credits.

Lec. M. W. F. 10:30

Professor Peterson

AGRICULTURAL ENGINEERING*

AGRICULTURAL SURVEYING

PROFESSOR RAY B. WEST

JUNIOR COLLEGE COURSES

1a. FARM SURVEYING. For students of agriculture. Practice in the handling of surveying instruments that may be purchased by the average farmer. Running of ditch lines, grading and leveling of land, retracing of section lines, and the laying out of tile drains. One recitation and two laboratory periods. Spring quarter. Three credits.

W. 8:00; M. W. 2 to 4:30

Professor West

1. SURVEYING FOR AGRICULTURAL ENGINEERING STUDENTS. This is a more thoro course than course 1a, and covers in addition to the above a study of the instruments generally used by engineers, topographic surveying, hydrographic surveying, and some mine and city surveying. Two recitations and two laboratory periods. Fall and Spring quarters. Four credits.

W. 8:00; T. Th. 2 to 4:30

Professor West

3. SOIL AND OTHER AGRICULTURAL SURVEYS. The methods of preparing maps of a given agricultural area, and surveys of the various agricultural interests within the area. Three hours, one quarter. Three credits.

Professor West

*See Farm Mechanics, Irrigation and Drainage, Mechanic Arts for related work.

4. **MAPPING.** Practice in the mapping of the various kinds of surveys that may be encountered by the agricultural engineer. Three laboratory periods a week. Three credits. Given any quarter that a sufficient number of students apply.

Professor West

SENIOR COLLEGE COURSES

2. **CANAL AND ROAD SURVEYING.** Instruction and practice in the application of the surveying methods used in the laying out and construction of canals and roads. Three recitations and two laboratory periods, one quarter. Five credits. Open to Junior College students. Prerequisite, Surveying 1.

Professor West

ROADS

PROFESSOR R. B. WEST

1. **ROAD CONSTRUCTION.** Road location, grade, drainage, resistance to traction, road materials, cost of construction and of machinery for preparing road material. Five hours. Fall quarter. Five credits.

Daily, 11:20

Professor West

2. **ROAD MAINTENANCE.** Width of tires and size of wheels, keeping up the road, repairing worn surfaces, maintaining drainage, employment of labor, cost of maintenance, comparison of different road machines. Prerequisite, Roads 1. Five hours. Winter quarter. Five credits.

Daily, 11:20

Professor West

3. **BRIDGE BUILDING.** Methods of bridge construction, materials used, and the amount of stress on arches of various kinds; the relative cost, strength, and durability of different bridges. Special attention is given to small bridges and culverts. Three hours, one quarter. Three credits.

Professor West

4. ROAD MATERIALS. A study of the various materials used in the construction and maintenance of roads. Special attention is given to the materials available to Utah farmers. Prerequisite, Geology 2 and 4. Three hours. Winter quarter. Three credits.

Lec. T. Th. 8:50; lab. 2 to 4:30

Professor West

RURAL ARCHITECTURE

PROFESSOR RAY B. WEST

PROFESSOR FLETCHER

JUNIOR COLLEGE COURSES

1. FARM STRUCTURES. The arrangement, design, and construction of barns, stables, poultry houses, silos, etc. Winter quarter. Three credits.

M. W. F. 8:00

Professor West

3. MATERIALS OF CONSTRUCTION. The chemistry of iron, steel, the alloys, etc., and their special use in machine parts; strength, composition, and proper use of the woods, plaster, glass, glue, paints, cement, brick, etc., in building. Five hours. Fall quarter. Five credits.

Daily, 10:30

See Technology of Mechanic Arts 7.

5. CONCRETE CONSTRUCTION FOR AGRICULTURAL PURPOSES. Various mixtures of cement and their uses; the use of concrete in the making of barns, water troughs, posts, etc. Three hours. Spring quarter. Three credits. Laboratory fee \$1. Hours to be arranged.

Professor West

8. PLANNING OF FARM STRUCTURES AND HOMES. The making of plans for farm buildings, including complete specifications, cost of materials and erection. Fall quarter.

M. W. F. 12:10

Professor West

9. HOUSE BUILDING AND CONTRACTING. Various methods of construction: the frame, two brick, three brick, stucco, shingle,

cement block, and stuccoed hollow tile ; cost and economy of each ; interior finishing. Five hours. Winter and Spring quarters.

Daily, 10:30

Professor West

See Technology of Mechanic Arts 5.

SENIOR COLLEGE COURSES

4. MECHANICS OF FRAMED STRUCTURES. The strength and design of joints in timber framing. Holding power of nails, screws, drift bolts, etc. Design of beams, columns, and simple trusses in wood. Winter quarter. Five credits. Prerequisite, trigonometry.

Daily, 8:50

Professor West

6. REINFORCED CONCRETE. The design of beams, columns, and floor slabs in reinforced concrete, and the application of the principles of design to retaining walls, cisterns, etc. Three credits.

Professor West

10a. RURAL ARCHITECTURE. Architectural Composition. Study of the principles of composition as applied to buildings, emphasis being put on correction of common errors in the design of elevations. Open to Junior College students. Ten hours. Fall term. Three credits.

Professor Fletcher

10b. ARCHITECTURAL COMPOSITION. Continuation of course 10a with special attention to relation of all the parts of the exterior and architectural effects in environment. Prerequisite, Course 10a. Open to Junior College students. Ten hours. Winter quarter. Three credits.

Professor Fletcher

11. STYLES IN ARCHITECTURE. Study of the great styles or periods of architecture with special attention to those phases most vital to an understanding of modern building. Open to Junior College students. Ten hours. Spring quarter. Three credits.

Professor Fletcher

Note.—For related work in interior design and furniture and ornamental metal design see courses in Applied Art.

RURAL SANITATION

PROFESSOR GREAVES

PROFESSOR R. B. WEST

PROFESSOR HENDERSON

JUNIOR COLLEGE COURSES

1. RURAL SANITATION (*Bacteriology a*). An elementary course dealing with bacteria in relation to agriculture. The nature, cause and prevention of communicable diseases, the sanitary necessities of the community and the individual are considered. Three lectures. Winter quarter. Will be given in 1918-19 if registration justifies. Three credits.

M. W. F. 8:50.

Professor Greaves

2. PARASITOLOGY (*Zoology g*). Structure and life history of animal parasites. Special attention given to insects and related animals that carry organisms injurious to man and the domestic animals. Four lectures. One laboratory period. Fall quarter. Five credits.

Lec. M. T. W. Th. 8:50; lab. F. 2 to 4:30

Mr. Sorenson

SENIOR COLLEGE COURSES

3. SANITATION (*Bacteriology 8*). Principles of sanitation; nature of disease, its spread, and means of prevention and disinfection; sanitary arrangement and construction of farm buildings. Three lectures thruout the year. Nine credits.

M. W. F. 11:20

Professor Greaves

4. SANITARY ANALYSIS (*Bacteriology 6*). Methods used by the sanitary inspector in examining water, milk, and other foods. Prerequisites, Chemistry 6 and Bacteriology 1. Three laboratory periods. Winter quarter. Fee \$1. Beakage deposit \$2.50.

Professor Greaves

5. DAIRY BACTERIOLOGY (*Bacteriology 5a*). The bacteria of milk, butter, and cheese; communicable diseases in their relation to the dairy; contamination by air, water, utensils; desirable and undesirable fermentation. Two lectures. Fall quarter. No fee. Two credits.

T. Th. 8:00

Professor Greaves

6. RURAL WATER SUPPLY AND WASTE DISPOSAL. Methods of (a) supplying farm and rural communities with sanitary water; (b) handling waste of the farm and small town.

Professor R. B. West

7. DAIRY BACTERIOLOGY LABORATORY (*Bacteriology 5b*). Methods used in the bacteriological examination of milk and dairy products. May accompany Dairy Bacteriology 5. Three laboratory periods. Fall quarter. Fee \$1. Breakage deposit \$2.50. Three credits.

M. W. F. 2 to 4:30

Professor Greaves

8. SANITARY STATISTICS (*Bacteriology 9*). Vital statistics showing the effects of sanitary precautions upon health in cities and rural communities. Two lectures. No fee. Two credits.

Professor Greaves

AGRONOMY*

PROFESSOR HARRIS

ASSISTANT PROFESSOR STEWART

MR. PITTMAN

MR. JENSEN

VOCATIONAL COURSES

a. ELEMENTARY AGRONOMY. Practical information on crops and soils for short practical-course students. Lectures, recita-

*Farm Management subjects may be used toward a major in Agronomy.

tions, and laboratory work. Five lectures and one laboratory. Winter quarter. Six credits.

Daily, 11:20; lab. M. 2 to 4:30

Professor Stewart and Mr. Jensen

b. DRY-FARMING. The methods best adapted to the growing of profitable crops on arid lands; the treatment of the soil; the soils and crops best adapted to arid-farming; the regions offering favorable conditions for its successful practice. Winter quarter. Five credits.

Daily, 8:00

Professor Stewart and Mr. Jensen

JUNIOR COLLEGE COURSES

1. CEREAL CROPS. The history, cultivation, production, and marketing of cereal crops; a basis for judging and grading plant products. Must be preceded or accompanied by Botany 1. Three lectures and one laboratory. Winter quarter. Four credits.

Lec. M. W. F. 8:50; lab. T. 2 to 4:30

Professor Stewart

2. ROOT CROPS. Sugar beets, potatoes, mangels, turnips, and other root crops. Culture, methods, market types, and commercial possibilities are studied in detail. Must be preceded or accompanied by Botany 1. Three lectures and one laboratory. Fall quarter. Four credits.

Lec. M. W. F. 8:50; lab. T. 2 to 4:30

Professor Stewart

3. FORAGE AND MISCELLANEOUS CROPS. Alfalfa, clovers, grasses, and other crops. Methods of handling hay, meadow and pasture management, and soiling crops are discussed. Must be preceded or accompanied by Botany 1. Three lectures and one laboratory. Spring quarter. Four credits.

Lec. M. W. F. 8:50; lab. T. 2 to 4:30

Professor Stewart

4. SEEDS AND WEEDS. Seeds and their impurities; quality and preservation of seeds; their storage, shrinkage, vitality, etc.; the common seeds of Utah; methods of identifying and eradicating them; field work. Prerequisites, Botany 1 and Agronomy 1. One lecture and one laboratory. Fall quarter. Two credits.

Lec. T. 8:50; lab. Th. 2 to 4:30

Professor Stewart

SENIOR COLLEGE COURSES

5. JUDGING AND GRADING CROPS. The various methods of scoring grains and other crops; judging crops and identifying varieties; types demanded by the market; grading of market types. Prerequisites, Agronomy 1, Agronomy 2 and 3, and Horticulture 1 preferred. One lecture and one laboratory. Spring quarter. Two credits.

Lec. T. 8:00; lab. Th. 2 to 4:30

Professor Stewart

6. SOILS. Review of the entire field of soil study; designed as a foundation course for all students of agriculture. Prerequisite, Chemistry 1, Physics and Geology 2 preferred. Four lectures and one laboratory. Winter quarter. Five credits.

Lec. M. T. Th. F. 10:30; lab. W. 2 to 4:30

Professor Stewart and Mr. Pittman

10. IRRIGATION AND DRAINAGE PRACTICE. Three lectures and two laboratories.

See Irrigation and Drainage I.

7. COMPARATIVE SOILS. Soils of the world; their origin, composition, and agricultural value; soil provinces of the United States, especially those of the arid regions; the soils of Utah, the crops adapted to them, and their treatment. Prerequisite, Agronomy 6. Two lectures and one laboratory. Winter quarter. Three credits.

8. MANAGEMENT OF ARID SOILS. The composition, nature

and management of soils of arid regions ; special attention to water relations, alkali, rotations, manure, tillage, and other problems in the management of arid soils. Prerequisite, Agronomy 6. Two lectures and one laboratory. Spring quarter. Three credits.

Lec. T. Th. 10:30; lab. W. 2 to 4:30

Professor Stewart and Mr. Pittman

9. FIELD CROP IMPROVEMENT. Varieties of field crops and their adaptation, selection, and improvement; attention to the methods of plant-breeding as practiced in America and Europe. Prerequisites, Agronomy 1 and 2, or 1 and 3. Two lectures. Spring quarter. Two credits.

M. W. 10:30

Professor Stewart

11. ADVANCED LABORATORY IN SOILS. Chemical and mechanical analysis or special laboratory work. Three hours or more, any quarter.

Professor Harris

12. SEMINAR. Current agronomic literature; agricultural problems; assigned topics. Required of seniors in agronomy; open also to juniors. One hour each quarter. One credit each quarter.

W. 10:30

Professors Stewart and Harris

13. RESEARCH. Seniors specializing in agronomy may elect research work in any branch of the subject. Time and credit to be arranged with instructor.

Professor Harris

FARM MANAGEMENT

SENIOR COLLEGE COURSES

1. FARM MANAGEMENT. A survey of the business aspects of farming. The relation of capital, size, and diversity of busi-

ness, farm equipment, farm layout, labor, cropping systems, production costs, marketing and farm accounts, to agricultural products both general and specific. Fall quarter. Five credits.

Lec. M. T. Th. F. 10:30; lab. W. 2 to 4:30

Professor Stewart

2. **ADVANCED FARM MANAGEMENT.** Special problems supplementing the general course will be the important consideration. Designed for students who desire additional training in the subject and who have taken or are taking the general course. Round-table discussion of farm management problems relating to Utah. Current farm management literature will be discussed as well as an opportunity afforded the student to do research work.

(Not given in 1918-19)

ANIMAL HUSBANDRY

PROFESSOR CARROLL

ASSISTANT PROFESSOR ALDER

ASSOCIATE PROFESSOR CAINE

VOCATIONAL COURSES

c. **FEEDING AND MANAGEMENT.** A non-technical course dealing with the practice of feeding and management of different classes of livestock. Five lectures. Winter quarter. Five high school credits.

Daily, 8:00

Professor Carroll

(Not given in 1918-19)

JUNIOR COLLEGE COURSES

1. **MARKET TYPES.** The judging of market types of horses, cattle, sheep, and swine. Some score card practice is given, but most of the work is comparative judging of groups of animals.

Three lectures and two laboratory periods. Fall or Winter quarter. Five credits.

Lec. M. W. F. 9:40; lab. T. Th. 2 to 4:30

Associate Professor Caine

2. BREED TYPES. The origin, history, and characteristics of the different breeds of horses, cattle, sheep, and swine, especial stress being laid upon their adaptability to Western conditions. Five lectures. Winter quarter. Five credits.

Daily, 8:50

Associate Professor Caine

3a. PRACTICAL FEEDING. How the animal uses its feed; classes of feeds; compounding rations for different purposes and for different classes of animals. Prerequisite, Chemistry 1. Fall quarter. Five credits.

Professor Carroll

(Not given in 1918-19)

6. BEEF CATTLE MANAGEMENT. The practical methods of beef production, including a consideration of range practice, feeding for market, fitting for show, and general care and management. Three lectures. Winter quarter. Three credits.

M. W. F. 10:30

(Not given in 1919-20)

7. HORSE MANAGEMENT. Market types, handling of breeding and growing horses, fitting for show and sale, and practical methods of handling and training horses. Three lectures. Winter quarter. Three credits.

Associate Professor Caine

(Not given in 1918-19)

8. SWINE MANAGEMENT. The management of the breeding herd, fattening for market, and fitting for show. Three lectures. Fall quarter. Three credits.

M. W. F. 10:30

Associate Professor Caine

(Not given in 1919-20)

9. SHEEP MANAGEMENT. General care on range and farm, fattening for market, fitting for show, and work in grading and sorting wool.

(Not given in 1918-19)

SENIOR COLLEGE COURSES

3. ANIMAL NUTRITION. The anatomy and physiology of the digestive system; the purpose of nutrition; the theory and practice of feeding, with especial reference to Utah conditions. Prerequisite, Organic Chemistry or Physiology 2. Five lectures. Winter and Spring quarters. Ten credits.

Daily, 8:00

Professor Carroll

(Not given in 1919-20)

4. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. An application of the principles of breeding to practical breeding operations: the place of animal breeding on the farm; methods of selection; aids to selection; grading; cross breeding; line breeding; inbreeding; herd books; and pedigrees of noted individuals of the important breeds. Prerequisite, Zoology 3. Spring quarter. Five credits.

Professor Carroll

(Not given in 1918-19)

5. ADVANCED STOCK JUDGING. The judging of groups of animals of all classes. Attendance at the State Fair and at all accessible county fairs is required. Prerequisites, Animal Husbandry 1 and 2. Three laboratory periods. Fall quarter. Three credits.

M. W. F. 2 to 4:30

Associate Professor Caine

10. THE FIELD OF ANIMAL HUSBANDRY. A brief survey of the field of animal husbandry in relation to other branches of agriculture; the economics of the livestock business, and a brief con-

sideration of the various opportunities in livestock as a side issue.

Designed as an informational course for students not registered in the School of Agriculture. Three lectures. Fall quarter. Three credits.

M. W. F. 8:00

Professor Carroll

20. RESEARCH. Advanced students may elect research work in any phase of animal husbandry. Time and credit to be arranged with the department.

25. SEMINAR. Round-table discussions of current literature and special phases of animal husbandry and dairying by advanced students and instructors of the department. One meeting a week. Time to be arranged.

Professor Carroll and Associate Professor Caine

POULTRY HUSBANDRY

ASSISTANT PROFESSOR ALDER

VOCATIONAL COURSES

a. ELEMENTARY POULTRY. Practical information on the various phases of poultry management for short practical-course students. Four lectures and one laboratory. Winter quarter. Five credits. Time to be arranged.

Professor Alder

JUNIOR COLLEGE COURSES

1. GENERAL POULTRY. Breeds, judging, breeding, incubation, brooding, housing, feeding, and marketing. Four recitations and one laboratory period. Winter quarter. Five credits.

Lec. M. T. W. F. 8:00; lab. T. 2 to 4:30

Professor Alder

1a. Same course as 1, except no laboratory work is given. Three lectures. Fall or Winter quarter. Three credits.

Professor Alder

1b. GENERAL POULTRY FOR GIRLS. About 80 per cent of the poultry products of the State is accredited to women. This course is planned to meet the special problems of backyard poultry keeping. Winter quarter. Three credits.

Lec. T. Th. 8:50; lab. Th. 2 to 4:30

Professor Alder

2. INCUBATION AND BROODING. Practical and experimental work: the factors which influence the hatching quality of eggs and the raising of the chicks. Prerequisite, Poultry 1. Three recitations. Spring quarter. Three credits.

M. W. F. 8:00

Professor Alder

3. POULTRY MANAGEMENT. The housing, care, feeding, and management of different breeds under Western conditions. Prerequisite, Poultry 1. Two recitations, and laboratory work by special appointment. Winter quarter. Three credits. Time to be arranged.

Professor Alder

4. BREEDS AND BREEDING. The origin and development of the more important breeds and varieties of poultry; practice in judging; a review of the literature on breeding for utility and exhibition. Prerequisite, Poultry 1. Two recitations, and one laboratory period. Winter quarter. Three credits.

Professor Alder

ART

PROFESSOR POWELL

FINE ART

1. FREE HAND DRAWING. A study of composition of line and form and the principles of good taste. Prerequisite or parallel to Textiles and Clothing 1 or "e." Fall quarter. Three credits.

Daily 8:00

2. COMPOSITION. Application of ornament, painting, sculpture, and architecture. Prerequisite or parallel to Textiles and Clothing 1b or "c." Spring quarter. Three credits.

Daily 8:00

3. FREE HAND DRAWING. For students in mechanic arts. Ten hours weekly. Two credits each quarter.

Daily, 2 to 4:30

4. FREE HAND DRAWING. The study of plants, animals, insects; for students in agriculture. Ten hours weekly. Three credits each quarter.

Daily, 2 to 4:30

5. STUDIO. *Before registering students must consult with instructor in charge.*

Daily, 2 to 4:30

Sec. 1, one credit; sec. 2, two credits; sec. 3, three credits. (*Five hours in studio for one credit.*) Students may elect more than one section.

5a. Drawing from antique, animal life, still life, and ornament.

5b. Painting in oil, water color, or pastel from still life, landscape, animal, and the draped figure.

5c. Sculpture. Modeling in wax and clay, and casting in plaster, from ornament, antique, and life.

5d. Book, magazine, and newspaper illustration, including cartooning and caricature.

5e. Illustration for advertising. Designing posters and pictorial advertisements for newspapers, magazines, etc. Art 27g must accompany or precede this course for at least one term.

5f. Illustration for scientific purposes, conjointly with the departments of agronomy, botany, entomology, etc.

5g. Pictorial composition and critical judgment of pictures. Adapted to the layman, the photographer, and the painter.

Daily, 2 to 4:00

For History of Art see department of History; for Aesthetics see department of English.

APPLIED ART

PROFESSOR CALVIN FLETCHER

JUNIOR COLLEGE COURSES

21. DESIGN. The principles of design, color theory, and designing of house furnishings and costume. Prerequisite or parallel to Textiles and Clothing 1b or "e." Winter quarter. One credit.

Daily, 8:00

Professor Powell

25. INTERIOR DESIGN AND DECORATION. For tradesmen. Wall tinting and decoration, house painting, wood finishing, furnishing and draping, and making sketches for the client. Any phase of work may be taken up to suit the needs of the student. Credit given also in Senior College. Hours and credit arranged same as in Art 27.

Professor Fletcher

26. FURNITURE AND ORNAMENTAL METAL DESIGN. Four credits. Hours arranged as in Art 27.

Professor Fletcher

SENIOR COLLEGE COURSES

22. (a) HOUSE FURNISHING AND DECORATION. Consideration of the principles governing good taste in house exteriors and garden designs, wall decoration, floors, ceilings, color, and furniture selections and arrangements. Three lectures, and four hours laboratory. Open also to Junior College students. Winter quarter. Three credits.

M. W. F. 11:20; lab. T. Th. 11:20 and two hours to be arranged

Professor Fletcher

22. (b) TEXTILES AND DRAPERY, tableware, pottery, pictures, sculpture, flowers, and the assembling of all features which go to make the home beautiful. Three lectures, and four periods. Open also to Junior College students. Spring quarter. Five credits.

M. W. F. 11:20; lab. T. Th. 11:20 and two hours to be arranged

Professor Fletcher

27. STUDIO. Hours selected from 9:40 to 11:20, and 2 to 4:30 daily, but must be arranged with the instructor in charge.

Sec. 1, one credit; sec. 2, two credits; sec. 3, three credits.
(*Five periods work in studio each week for one credit.*)

27. (a) Pottery.

27. (b) China decoration and design.

27. (c) Copper, brass, and silver smithing. The underlying principles of metal treatment, including sawing, raising, soldering, repousse and enameling.

27. (d) Jewelry. Stone setting, hard soldering, enameling, repousse, chasing, casting, etc.

27. (e) Basketry, weaving, and bead work.

27. (f) Leather work, including tooling and modeling, etching, piercing, applique, inlay, dyeing, etc.

27. (g) Show card and sign writing, advertising arrangement, etc.

27. (h) Textile decoration, combining block printing, stenciling, batik, and needle craft.

27. (i) Wood ornamentation, including enamelac, carving, inlay, jesso work, staining and painting.

27. (j) Architectural composition. Advanced. Prerequisite, Rural Architecture 10 and 11.

27. (k) Special design for crafts for commercial purposes. Parallel to Art Needlework.

Hours elected any day from 8:50 to 11:20 and 2 to 4:30

Professor Fletcher

Note.—One or more examples of each student's work may be

retained by the Department, but in such cases materials furnished by the student are paid for.

For work in costume design and history of the house and furniture see department of Domestic Art and department of History respectively.

BACTERIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR GREAVES

MR. CARTER

MR. GOLDTHORPE

VOCATIONAL COURSES

a. **RURAL SANITATION.** An elementary course dealing with bacteria in relation to agriculture. The nature, cause and prevention of communicable diseases, the sanitary necessities of the community and the individual are considered. Three lectures. Winter quarter. Will be given in 1918-19 if registration justifies. Three credits.

Lec. M. W. F. 8:50

JUNIOR COLLEGE COURSES

1. **GENERAL AGRICULTURAL BACTERIOLOGY.** Biology and significance of bacteria. Introduction to microbiology of air, water, soil and milk considered in relationship to the various phases of agriculture. Three lectures. Two laboratory periods. Laboratory fee \$1. Breakage deposit \$2.50. Fall quarter. Five credits.

Lec. M. W. F. 10:30; lab. W. F. 2 to 4:30

Professor Greaves

2. **GENERAL BACTERIOLOGY.** Biology and significance of bacteria, microbiology of air, water, milk, food, and of human and animal diseases. Three lectures. Two laboratory periods. Win-

ter quarter. Laboratory fee \$1. Breakage deposit \$2.50. Five credits.

Lec. M. W. F. 9:40; lab. T. Th. 2 to 4:30

Professor Greaves

SENIOR COLLEGE COURSES

3. PATHOGENIC BACTERIOLOGY. Fundamentals, morphology, biology, function, etc. The pathogenic bacteria are considered in relation to specific diseases especially with regards the subject of immunity. Three lectures. Two laboratory periods. Prerequisites, Bacteriology 1 or 2. Winter quarter. Laboratory fee \$1. Breakage deposit \$2.50. Five credits.

Lec. M. W. F. 10:30; lab. W. F. 2 to 4:30

Professor Greaves

4a. SOIL BACTERIOLOGY (lecture). Bacteria are considered in relation to soil fertility. Influence of physical and chemical properties of a soil upon its bacterial life; ammonification, nitrification, and nitrogen fixation. Chemical methods of interpreting bacterial fermentations. Two lectures. Spring quarter. No fee. Two credits.

Lec. T. Th. 11:20

Professor Greaves

4b. SOIL BACTERIOLOGY (laboratory). Methods used in soil bacteriological investigation. May accompany preceding course. Three laboratory periods. Prerequisite, Bacteriology 1. Spring quarter. Fee \$1. Breakage deposit \$2.50. Three credits.

M. W. F. 2 to 4:30

Professor Greaves

5a. DAIRY BACTERIOLOGY (lecture). The bacteria of milk, butter and cheese; communicable diseases in their relation to the dairy; contamination by air, water, utensils; desirable and undesirable fermentation. Two lectures. Fall quarter. No fee. Two credits.

Lec. T. Th. 8:00

5b. DAIRY BACTERIOLOGY (laboratory). Methods used in the bacteriological examination of milk and dairy products. May accompany Bacteriology 5a. Prerequisite, Bacteriology 1 or 2. Three laboratory periods. Fall quarter. Fee \$1. Breakage deposit \$2.50. Three credits.

M. W. F. 2 to 4:30

6. SANITARY ANALYSIS Methods used by the sanitary inspector in examining water, milk, and other foods. Prerequisites, Chemistry 6, and Bacteriology 1. Time and credit to be arranged. Fee \$1. Breakage deposit \$2.50.

Professor Greaves

7. RESEARCH. The laboratory and library facilities are especially arranged for advanced students in bacteriological investigation in agriculture, household science, the industries, sanitary science, and veterinary science. Time and credit to be arranged.

Professor Greaves

8. SANITATION. Principles of sanitation; nature of disease, its spread, and means of prevention and disinfection; sanitary arranging and construction of farm buildings. Three lectures thru the year. Nine credits. No fee.

Lec. M. W. F. 11:20

Professor Greaves

9. SANITARY STATISTICS. Vital statistics showing the effects of sanitary precautions upon health in cities and rural communities. Two lectures. Spring quarter. No fee. Two credits.

10. PHYSIOLOGICAL CHEMISTRY (*Chemistry 7*). The transformations going on in the plant and animal organism. Five lectures. Prerequisites, Chemistry 1 and 2. Spring quarter. No fee. Five credits.

Lec. Daily, 8:00

Professor Greaves

11. PHYSIOLOGICAL CHEMISTRY (laboratory). May accompany the preceding course. Two laboratory periods. Spring quarter. Fee \$1. Breakage deposit \$2.50. Two credits.

12. MILITARY SANITATION. Diseases of the soldier, sanitation of camp, water, and food. Two lectures. Fall or Winter quarter.

BOTANY

PROFESSOR HILL

ASSISTANT PROFESSOR RICHARDS*

MR. WILSON

MR. NUFFER

MR. MECHAM

VOCATIONAL COURSES

A deposit fee of \$2.00 is required for all laboratory courses in Botany.

a. ELEMENTARY PLANT PATHOLOGY. Plant diseases of Utah, their nature, cause and control. For practical-course students. Two lectures, and one laboratory period. Winter quarter.

Lec. T. Th. 8:00, Room 179; lab. W. 2 to 4:30, Room 182

Professor Hill and Mr. Nuffer

JUNIOR COLLEGE COURSES

1. GENERAL BOTANY. A brief survey of the field of plant life; the nature and development of plants; plant parts and their functions; the food of plants; the relation of plants to human needs; noteworthy wild and cultivated plants. Three lectures, and two laboratory periods. Five credits. Spring quarter.

Lec. M. W. F. 8:50, Room 179

Lab. M. or T. and Th. or F. 2 to 4:30, Room 178

Professor Hill, Mr. Nuffer and Mr. Mecham

*On leave.

2a, 2b, 2c. PLANT PHYSIOLOGY, ANATOMY, MORPHOLOGY, AND CLASSIFICATION. Plant physiology in relation to crop production is made the basis of the course. Designed especially for students in agriculture. Required for major or minor in botany. Three lectures, and two laboratory periods thruout the year. Fifteen credits. Prerequisite or parallel, Chemistry 1. Students may register for Botany 2b, without 2a, only by permission.

Lec. M. W. F. 8:00, Room 179

Lab. M. or T. and Th. or F. 2 to 4:30, Room 182

Professor Hill and Mr. Nuffer

SENIOR COLLEGE COURSES

3. FLOWERING PLANTS. Our common plants and their relationships; special emphasis given to economic plants. Two lectures, and one, two, or three laboratory periods. Spring quarter. Three, four, or five credits. Prerequisite, Botany 1, or Botany 2.

Lec. T. and Th. 8:00; lab. S. 8 to 1:00, and any afternoon 2 to 4:30

Professor Hill, Mr. Nuffer and Mr. Mecham

3a. A continuation of Course 3, extending thru the summer; a consideration of the general summer flora or of particular families and their distribution. A laboratory course. Two to five credits according to work done. Prerequisite, Botany 3. This course may be taken thru correspondence.

4. PLANT PHYSIOLOGY. An advanced course dealing with the water relations of plants; absorption, metabolism, and growth and factors affecting it. Three lectures, and two laboratory periods. Five credits. Prerequisite, Botany 2.

(Not given in 1918-19)

5. PLANT PATHOLOGY. The history, nature, cause, and control of plant diseases. Two lectures, and one to three laboratories per week. Fall quarter. Three to five credits.

Lec. T. and Th. 8:00, Room 179

Lab. W. and two other afternoons 2 to 4:30, Room 182

Professor Hill and Mr. Nuffer

6. MYCOLOGY.

(Not given in 1918-19)

7. MORPHOLOGY.

(Not given in 1918-19)

8. MATERIALS AND METHODS IN BOTANICAL TECHNIQUE.

Collection and preservation of botanical specimens. Preparation of botanical materials and slides for class room study and exhibition purposes. Designed particularly for teachers of botany. A laboratory course. Two to five credits. Any quarter. Prerequisite, Botany 1 or 2.

Professor Hill and Mr. Nuffer

9. FORESTRY. The principles of silviculture and forest management, and Western forest and range problems. Prerequisite, Botany 1 or 2.

(Not given in 1918-19)

10. DENDROLOGY. Structure and properties of wood; economic woods, their identification and uses. Prerequisite, Botany 1 or 2. Botany 9 and Physics 1 should also precede the course.

(Not given in 1918-19)

11. ECOLOGY. The distribution and adaptation of plants in relation to temperature, nature, light, soil, alkali, and other environmental factors.

(Not given in 1918-19)

12. SEMINAR. Current literature in the field of botany. One hour a week thru the year. Three credits. Time to be arranged.

Professor Hill

13. RESEARCH. Open to qualified Senior College students. Time and credit to be arranged.

Professor Hill

CHEMISTRY

PROFESSOR PORTER*

PROFESSOR WEST

PROFESSOR GREAVES

ASSISTANT PROFESSOR HIRST

ASSISTANT PROFESSOR THOMAS

MR. LUND

JUNIOR COLLEGE COURSES

1. INORGANIC CHEMISTRY. The properties and preparation of the elements and their ordinary compounds. The quantitative laws of chemical combinations and their applications. The effects of temperature and concentration in displacing chemical equilibria. This course is adapted to the requirements of students who have not had high school chemistry. Prerequisite, algebra including quadratics. Three lectures, and six hours of laboratory work, two quarters. Ten credits.

Sec. 1. M. W. F. 10:30. Fall and Winter quarters

Sec. 2. M. W. F. 11:20. Winter and Spring quarters

Lab. for either section, M. W. 2 to 4:30; or T. Th. 2 to 4:30

1a. INORGANIC CHEMISTRY. A brief course devoted to the general principles of inorganic chemistry. Prerequisite, high school chemistry. Two lectures, and one laboratory period a week, two quarters. Six credits.

Sec. 1. T. Th. 10:30. Fall and Winter quarters

Sec. 2. T. Th. 11:20. Winter and Spring quarters

2. ORGANIC CHEMISTRY. Fundamental principles of organic chemistry. A study of the aliphatic and aromatic hydrocarbons and their derivatives. The chemistry of fats, carbohydrates and proteins. Prerequisite, Chemistry 1 or 1a. Eight credits.

Lec. Daily, 8:30. Winter or Spring quarters

Lab. M. W. F. 2 to 4:30

*On leave.

4. QUALITATIVE ANALYSIS. A course in the theory and practice of inorganic qualitative analysis. The student is required to become familiar with the reactions of the common ions and to apply the principles involved in chemical equilibria, ionization, hydrolysis, oxidation and reduction.

Text: Stieglitz "Qualitative Analysis."

One lecture and nine hours of laboratory work a week thruout the year. Ten credits. Prerequisite, Chemistry 1 or 1a and Physics 1.

Lec. T. 8:00

7. PHYSIOLOGICAL CHEMISTRY. The chemical transformations occurring in plant and animal organisms. Spring quarter. Five credits. Prerequisite, Chemistry 2.

Daily, 8:00

18. CHEMISTRY. The fundamental principles of organic chemistry. The study of the chemistry, preparations, and uses of the aliphatic and aromatic hydrocarbons, and their derivatives. Organic compounds used for flavors, baking powders, food adulterants and preservatives, anaesthetics and common disinfectants will be considered. Special attention will be given the carbohydrates, fats, and proteins. Prerequisite, Chemistry 1 or 1a. Five lectures, and one laboratory per week. Six credits. Fall quarter.

Lec. Daily, 9:40; lab. M. 2 to 4:30

SENIOR COLLEGE COURSES

6. QUANTITATIVE ANALYSIS. One lecture and nine hours of laboratory work a week thruout the year. Ten credits. Prerequisite, Chemistry 1 or 1a.

Lec. Th. 8:00

8. INDUSTRIAL CHEMISTRY. Industrial applications of air, water, fertilizers, fuels, gases, petroleum, mortars, cements, explosives, oils, and paints. Three lectures a week thruout one quarter. Three credits. Prerequisite, Chemistry 2. Winter quarter.

M. W. F. 8:00

9. RESEARCH. Time and credit to be arranged with the instructor.

10. SPECIAL COURSE IN QUANTITATIVE ANALYSIS. Time and credit to be arranged with the instructor.

- a. Water analysis
- b. Food analysis
- c. Soil analysis
- d. Urine analysis
- e. Gas analysis

12. GENERAL ORGANIC REACTIONS. A consideration of the more important reactions employed in synthetic organic chemistry. Two lectures a week. Fall quarter. Two credits. Prerequisite, Chemistry 2.

Lec. T. Th. 8:50

14. THE NITROGEN COMPOUNDS. A course devoted primarily to the proteins, alkaloids, and purine derivatives. Two lectures a week. Winter quarter. Two credits. Prerequisite, Chemistry 2.

Lec. T. Th. 8:50

15. ORGANIC PREPARATIONS. An advanced laboratory course in the practical methods of synthetic organic chemistry. Nine hours a week, either quarter. Three credits.

16. PHYSICAL CHEMISTRY. The Kinetic theory, solutions, thermo-chemistry, and electro-chemistry. Five lectures a week, one quarter. Five credits. Prerequisite, Chemistry 1 or 1a and Physics 1.

(Not given in 1918-19)

17. HISTORY OF CHEMISTRY. Two lectures a week thruout the year. Six credits.

Lec. T. Th. 8:00

DAIRYING

ASSOCIATE PROFESSOR CAINE

MR. _____

JUNIOR COLLEGE COURSES

1. ELEMENTS OF DAIRYING. The secretion and composition of milk; testing for fat, acid, and adulterants; dairy sanitation; pasteurization; separation; making of butter and cheese. Prerequisites, Chemistry 1, and Bacteriology 1. Three lectures and two laboratory periods. Spring quarter. Five credits. Fee \$1.

Lec. M. W. F. 8:00; lab. S.

MR. _____

2. DAIRY TECHNOLOGY. The production, preparation and food value of sanitary, certified, modified, fermented, dried, and condensed milks, the manufacture of butter, cheese, soft cheese, ice cream, renovated butter, oleomargarine, milk sugar, casein, etc. Prerequisites, Chemistry 1, and Bacteriology 1. Four lectures and one laboratory period. Winter quarter. Five credits.

MR. _____

SENIOR COLLEGE COURSES

3. DAIRY FARM MANAGEMENT. A brief review of breeds of dairy cows; starting a herd; herd management. Each student submits an original plan of a dairy farm, estimating values of property, expense of operation, and profits to be derived. Four lectures and one laboratory. Spring quarter. Five credits.

Lec. daily except F. 8:50; lab. to be arranged

Associate Professor Caine

4. BUTTERMILK. Designed to meet the needs of creamery men. Prerequisite, Dairying 1. Time and credit to be arranged

MR. _____

5. **CHEESE MAKING.** The manufacture, curing and storage of the various standard kinds of cheese. Prerequisite, Dairy 1. Time and credit to be arranged.

Mr. _____

7. **RESEARCH WORK.** Important dairy subjects; a digest of recent dairy work of the experiment stations. Time and credit to be arranged with the department.

ECONOMICS

PROFESSOR HENDRICKS
ASSISTANT PROFESSOR BROOKE
ASSISTANT PROFESSOR WALLIN
MR. HARDY

VOCATIONAL COURSES

a. **ECONOMICS OF BUSINESS.** An elementary course dealing with the laws of economics, and designed for the students in the short, practical courses. Winter quarter. Five credits.

Daily, 2:00

b. **BUSINESS ORGANIZATION.** Elementary course in the organization of business; designed especially for short, practical students. Fall quarter, first term. Two and a half credits.

Daily, 2:50

c. **ELEMENTARY BUSINESS FINANCE.** Elementary study of the methods in financing a business under modern industrial conditions; designed for short, practical students. Fall quarter, second term. Two and a half credits.

Daily, 2:50

JUNIOR COLLEGE COURSES

1. **ELEMENTS OF ECONOMICS.** The laws of man's economic activity, as the basis of a scientific understanding of industrial con-

ditions. Topics: economic want, value, rent, wages, profits, interest. Ten credits.

Sec. 1. Daily, 8:50. Fall and Winter quarters

Professor Brooke

Sec. 2. Daily, 10:30. Winter and Spring quarters

Professor Wallin

3. HISTORY OF COMMERCE. Its development in Egypt, Greece, Rome, Florence, Medieval Europe; the commercial nations of modern times. Six credits.

(Not given in 1918-19)

4. COOPERATION AND MARKETS. The best methods of selling farm products, considered first from the viewpoint of the consumer, and secondly from that of the producer. This includes a discussion of municipal markets, the cost of marketing, the prices of farm products, and various forms of farmers' cooperative selling organizations. Winter and Spring quarters. Six credits.

M. W. F. 9:40

Professor Wallin

5. INDUSTRIAL RESOURCES. The resources of the United States, with special emphasis on Western agricultural, pastoral, mineral, and soil and water resources.

(Not given in 1918-19)

See Geology 3.

9. ADVERTISING. The literature and make-up of advertising; the advertisements of newspapers and magazines; the psychology of advertising, and practical experience in the writing of advertisements. Fall quarter. Five credits.

Daily, 10:30

Professor Brooke

12. AGRICULTURAL ECONOMICS. Rural credits. The economic principles of farm management, estate management, and agrarian legislation, especially adapted to Western conditions.

Special attention given to the Federal Farm Loan Act. Winter quarter. Five credits.

Daily, 11:20

19. SALESMANSHIP. A study of the underlying principles as they apply not only to the salesman but to the sales manager. Practical demonstrations will be required of students. Winter quarter. Five credits.

Daily, 10:30

Professor P. E. Peterson

20. AGRICULTURAL COMMERCE. A general survey of the basic conditions for the development of the business side of agriculture. Especially helpful for those who wish to take up the work in Markets and Agricultural Economics. Fall quarter. Three credits.

M. W. F. 9:40

Professor Wallin

SENIOR COLLEGE COURSES

2. GENERAL ECONOMICS. A comprehensive study of the fundamentals of economic theory. Nine credits.

M. W. F. 9:40

Professor Hendricks

15. A RESEARCH COURSE IN ECONOMICS. Time and credit to be arranged with the instructor.

16. COLLEGE ECONOMIC READINGS. Discussion of current economic literature. One credit each quarter.

17. LABOR PROBLEMS. A discussion of fundamental principles underlying the labor problem. Attention will be given to boycotts, strikes, lockouts, industrial arbitration, labor legislation. The subtle relationships between labor and capital will be considered. Spring quarter. Five credits.

Daily, 2:00

Professor Wallin

18. **INSURANCE.** A discussion of fundamental principles of insurance. Attention will be given to the practices of modern insurance companies, as they affect the insured and the beneficiary and the State. Winter quarter. Two credits.

See Sociology, for related work.

ELOCUTION AND PUBLIC SPEAKING

ASSISTANT PROFESSOR HUNTSMAN

JUNIOR COLLEGE COURSES

1. **ELOCUTION. Vocal Expression.** A study of the principles of expressive reading and the vocal interpretation of literature with supplementary work in voice development and bodily expression. Thruout the year. Open to Winter course students. Nine credits.

M. W. F. 11:20

2. **ELOCUTION. Vocal Interpretation.** The aim of this course will be to develop emotional power, literary appreciation and the ability to interpret the printed page. Prerequisite, Elocution 1. Thruout the year. Open to Winter course students.

Fall quarter: lyrics and ballads.

Winter quarter: short stories.

Spring quarter: scenes from Shakspeare's plays.

Four credits.

T. Th. 11:20

3. **EXTEMPORANEOUS SPEAKING.** Practice in extemporaneous speaking on subjects of current interest. Supplementary work in voice development and the correction of defects in speech. Occasional practice assignments in reading. Thruout the year. Open to Winter course students. Six credits.

Two sections. T. Th. 8:50; T. Th. 10:30

SENIOR COLLEGE COURSES

4. PUBLIC SPEAKING. A study of the principles of effective public speaking with practice in the preparation and delivery of speeches. Adapted to various audiences. Occasional practice assignments from the masterpieces of oratory. Prerequisite, Extemporaneous Speaking. Thruout the year. Open to Winter course students. Nine credits.

M. W. F. 9:40

5. DRAMATIC INTERPRETATION. A laboratory course in the modern drama. The plays of Ibsen, Hauptmann, Maeterlinck, Shaw, Galsworthy, Yeats, Synge, and other contemporary dramatists will be studied from the interpretative side. Members of the class will vocally interpret characters and scenes assigned for individual study and several plays will be presented to the public as part of the class work. Prerequisite, Elocution 1 and 2. Thruout the year. Nine credits.

M. W. F. 10:30

ENGLISH

PROFESSOR PEDERSEN

ASSISTANT PROFESSOR OGBURN

ASSISTANT PROFESSOR KYLE

Papers written by students for other departments constitute a large part of the theme work required in courses in English.

VOCATIONAL COURSES

b. Emphasis on the fundamentals of good writing, reading, and speaking. Fall quarter: study and practice in grammar, spelling, and punctuation. Winter quarter: composition applied to business letters and commercial forms. Spring quarter: study and oral reading of easy classics. Thruout the year. Students may enter at any quarter. Fifteen credits.

Daily, 11:20

Assistant Professor Ogburn

c. Corresponding to third year high school English. Fall quarter: study of novels, essays, plays; oral and written composition. Winter quarter: business English—study of the paragraph and the sentence as applied to business letters and forms; review of grammar and spelling. Spring quarter: oral composition; study of interesting modern books, with a view to developing a taste for the best in literature. Thruout the year. Students may enter at any quarter. Nine credits.

M. W. F. 8:50

Assistant Professor Kyle

JUNIOR COLLEGE COURSES

6. HISTORY OF ENGLISH LITERATURE. The literature of Great Britain from the Anglo-Saxon period to the present day, with emphasis upon the post-Elizabethan period. Three hours thruout the year. Nine credits.

Sec. 1. M. W. F. 9:40

Assistant Professor Ogburn

Sec. 2. M. W. F. 10:30

Assistant Professor Kyle

7. FRESHMAN COMPOSITION AND RHETORIC.

Business English. Six credits.

Sec. 1. Fall and Winter quarters.

M. W. F. 10:30

Professor Pedersen

Sec. 2. Winter and Spring quarters.

M. W. F. 10:30

Assistant Professor Ogburn

Literary Forms. Descriptions, narratives, stories. Runs thruout the year. Six credits.

Sec. 3. T. Th. 8:50

Assistant Professor Ogburn

EXPOSITION. Practice in forms of writing especially suited to the needs of students in Agriculture and Home Economics. Preparation of reports and demonstrations; special attention given

to the organization of oral and written reports. Thruout the year. Six credits.

Sec. 4. T. Th. 10:30

Sec. 5. T. Th. 11:20

Assistant Professor Kyle

SENIOR COLLEGE COURSES

Prerequisite for all courses in Senior College, English 6, 7, and one year of a foreign language.

8. ADVANCED WRITING. Open to students who have had Freshman composition. The course is based on current models as found in Cunliffe and Lomer's "Writing of Today," which is used as a text. The training afforded should lead the student toward the magazine market Thruout the year. Six credits.

T. Th. 8:50

Professor Pedersen

9. RECENT LITERATURE. Essays, plays, novels, dealing with contemporary problems in modern thought.

(Not given in 1918-19)

Professor Pedersen

10. SHAKSPERE. A detailed study, in class, of six plays: Macbeth, Henry the Fourth, King Lear, Hamlet, Othello, Twelfth Night. Collateral reading: various other Shakspearean plays as well as a biography. Thruout the year. Nine credits.

(Not given in 1918-19)

Professor Pedersen

11. THE MODERN DRAMA. The stage of today,—recent and living dramatists: plays by Ibsen, Strindberg, Hauptmann, Tchek-hof, Shaw, Galsworthy, Synge, and others. Fall and Winter quarters. Students may enter at beginning of either quarter. Six credits.

M. W. F. 9:40

Professor Pedersen

12. AMERICAN LITERATURE. History and development of American letters from colonial times to the present day. Thruout the year. Students may enter at beginning of any quarter. Six credits.

T. Th. 10:30

Professor Pedersen

14. ENGLISH PROSE OF THE NINETEENTH CENTURY. The novel and the essay. Runs thruout the year. Nine credits.

(Not given in 1918-19)

Assistant Professor Kyle

15. WORLD MASTERPIECES. Study of general literature with special attention to the chief classics in order to gain some acquaintance with what is best in literature other than English. Thruout the year. Students may enter at beginning of any quarter. Six credits.

T. Th. 10:30

Assistant Professor Ogburn

10. ENGLISH POETS OF THE NINETEENTH CENTURY. Wordsworth, Coleridge, Scott, Byron, Shelley, Keats, and others will be considered in their relation to the Romantic movement. Thruout the year. Nine credits. Students may enter at beginning of any quarter.

M. W. F. 11:20

Assistant Professor Kyle

20. DEBATING. Two hours thruout the year. Six credits.

T. Th. 8:00

Professor Pedersen

21. AESTHETICS. The principles of beauty as fundamental to all the arts. Spring quarter. Five credits.

Daily, 11:20

Professor Fletcher

25. JOURNALISM. News collecting, history of journalism in America, writing of special feature articles, study of journalistic

markets especially those of agricultural journalism, and writing of booster articles. Lectures and practical work. Two hours a week thruout the year. Four credits.

T. Th. 8:50

Professor Arnold

27. THE SHORT STORY. Study of its form; analysis of older and present-day examples; practice in writing two stories. Three credits.

(Not given in 1918-19)

Assistant Professor Ogburn

x. Drill in spelling, grammar, punctuation, sentence structure. Must be taken by any student whose English is not up to grade, as determined by any instructor in any course for which the student is registered. Any one so assigned to the class, must pass the course before he can graduate from the college. Winter quarter. Non-credit.

M. W. F. 8:00

Professor Pedersen

ENTOMOLOGY

PROFESSOR HENDERSON

ASSISTANT PROFESSOR HAGAN

JUNIOR COLLEGE COURSES

1. AGRICULTURAL ENTOMOLOGY. A general study of the insects of the intermountain region and of methods of control. Winter quarter. Five credits.

Daily, 8:50

Assistant Professor Hagan

2. SYSTEMATIC ENTOMOLOGY. Enough of the structure of insects is studied to enable the student to use the tables employed in classification. Each student must collect, mount, and properly

identify a representative collection of insects found in the vicinity of Logan. One lecture and two laboratory periods thruout the year. Three credits, each term. Laboratory fee \$1.

Lec. M. 2:00; lab. W. F. 2 to 4:30

Professor Henderson

SENIOR COLLEGE COURSES

3. ECONOMIC ENTOMOLOGY. An advanced course treating in detail insects of the intermountain region and in addition those of considerable importance in other states. The embryology, anatomy and metamorphosis of insects are carefully studied. Reports required. Two lectures and one laboratory period thruout the year. Three credits each quarter. Prerequisite, Agricultural Entomology.

Lec. M. W. 10:30; lab. T. 2 to 4:30

Assistant Professor Hagan

4. ENTOMOLOGICAL LITERATURE. Each student investigates and reports on the literature of some insect or insects of economic importance within his state. Historical development of entomology, current entomological literature and bibliographies are considered. Prerequisite, Entomology 2 or 3. Three lectures thruout the year. Three credits each quarter.

T. Th. F. 8:00

Professor Henderson

5. RESEARCH. Students may select or will be assigned certain problems dealing with different phases of entomology. The amount of credit will depend on the nature of the problems and the time spent. Thesis. Prerequisite, Entomology 2 or 3. Hours to be arranged.

*Professor Henderson and Associate Professor Hagan
See Zoology, for related work.*

FARM MECHANICS

ASSOCIATE PROFESSOR HUMPHERYS

JUNIOR COLLEGE COURSES

1. FARM MACHINERY. Tillage, cultivating, harvesting, pumping, and general labor saving machinery. Two recitations and one laboratory period. Spring quarter. Three credits.

Lec. M. T. 8:00; lab. W. 2:00

2. FARM MOTORS. The design, operation, adjustment and care of gasoline engines used on the farms, including the stationary engine, the tractor, the automobile, and motortruck. Three recitations and two laboratory periods, one quarter. Five credits.

Winter quarter. Sec. M. W. F. 9:40; lab. Sec. 1. T. Th. 2:00; Sec. 2. M. W. 2:00

Spring quarter. Sec. M. W. F. 9:40; lab. Sec. 3. M. W. 2:00; Sec. 4. T. Th. 2:00

3. FARM MACHINERY AND FARM MOTORS. Arranged for students in agriculture. A consideration of modern farm machinery and the application of steam and gas power to the various phases of farm work. Three lectures and two laboratory periods. Fall quarter. Five credits.

Lec. M. W. F. 8:00; lab. M. W. 2:00

4. FARM APPLIANCES. The fundamental principles of babbitting, soldering, pipe fitting, tube setting for steam engines, packing valves, rope splicing and belt lacing. Two recitations and one laboratory period. Fall quarter. Three credits.

Lec. T. Th. 8:00; lab. F. 2:00

SENIOR COLLEGE COURSES

5. ADVANCED FARM MOTORS. A thoro analysis of ignition devices for all gas engines, the care and repair of storage batteries and a consideration of modern types of automobile starting and lighting systems, such as the Delco, Disco, Bijur, Gray and Davis,

Westinghouse, and Wagner. Two recitations and one laboratory period. Three credits.

Winter quarter. Lec. T. Th. 10:30; lab. F. 2:00

Spring quarter. Lec. T. Th. 8:00; lab. F. 2:00

6. **AUTOMOBILE AND TRACTOR COURSE.** A twelve weeks' course for students who desire to become expert repairmen. All the time is devoted to automobile and tractor operation and repair, forging, machine work, acetyline welding, and electricity as applied to engines. Students taking this course will not be permitted to take any other courses. Credit given according to the grade of work done.

7. **SHORT COURSE IN TRACTORS.** A one month's course specially arranged for tractor owners, prospective owners, and repair men. All the time each day will be devoted to lecture, operation, assembling, taking down, and repair of tractors. A large number of tractors will be available for this work. Candidates for this course may register January or February.

Sec. 1. Opens Dec. 30; closes Jan. 31

Sec. 2. Opens Feb. 3; closes March 3

FINANCE AND BANKING

PROFESSOR HENDRICKS

ASSISTANT PROFESSOR BROOKE

ASSISTANT PROFESSOR WALLIN

JUNIOR COLLEGE COURSES

6. **FINANCIAL AND ECONOMIC HISTORY OF THE UNITED STATES.** The principal events of our political life and their economic causation; the history of the tariff, money and banking, agriculture, manufacturing, etc. Winter and Spring quarters. Ten credits.

Daily, 10:30

Professor Brooke

SENIOR COLLEGE COURSES

1. MONEY. A general survey of the laws and forms of money and credit; the money question; the money market; experience and legislation of recent times. Five credits.

(Not given in 1918-19)

2. BANKING. History and theory of banking in the United States and foreign countries, foreign exchanges. Three hours. Winter quarter. Three credits.

(Not given in 1918-19)

3. PUBLIC FINANCE. The principles of public expenditures, revenues, and administration. Fall quarter. Five credits.

Daily, 2:50

Professor Wallin

4. TAXATION. The methods of federal and state taxation, including the customs and internal revenue duties; income, business, inheritance, general property, and corporation taxes. Winter quarter. Five credits.

Daily, 2:50

Professor Wallin

5. CORPORATION FINANCE. Corporate incomes, expenditures, debts, and administration; the laws governing the growth of corporations, and the relation to the State. Fall quarter. Five credits. (Open to Junior College students by permission of instructor.)

Daily, 8:50

Professor Hendricks

7. RAILWAY TRANSPORTATION AND PRACTICE. The development of the railway system, railway finance, railway statistics; the theory of rates, methods of public control in Europe, Australia, and America. Five credits.

(Not given in 1918-19)

8. INDUSTRIAL EFFICIENCY. A study in modern business management, as an introduction to the work in efficiency engineering.

(Not given in 1918-19)

9. INDUSTRIAL EFFICIENCY. A study of the executive and his work in the field of modern business. Spring quarter. Five credits.

Daily, 8:50

Professor Hendricks

See Economics, Political Science, and Sociology for related work.

FOOD AND DIETETICS

PROFESSOR WHITACRE

MISS HUNTER

MISS BEERS

VOCATIONAL COURSES

a. HOUSEHOLD COOKERY. Study and practice of the preparation of food to meet dietary requirements of a household. One lecture and two laboratory periods thruout the year. Nine credits.

Lec. M. 9:40; lab. T. Th. 9:40 to 12:10

b. CAFETERIA MANAGEMENT AND PRACTICE. This course covers the organization, equipment, service and general management of cafeterias and lunch rooms. Prerequisites or parallel, Foods a, General Elementary Science, Household Ad. b. One lecture and two laboratory periods thruout the year. Nine credits.

Lec. W. 8:50; lab. T. Th. 9:40 to 12:10

c. FOOD ECONOMICS. General methods of food cultivation; production; transport; protection; preservation; preparation and conservation. Diet accessories. Nutritional, economical and other

influences affecting choice and amount of food. Prerequisites or parallel, Foods a. Two lectures and one laboratory period thruout the year. Nine credits.

Lec. T. Th. 8:00; lab. T. 2 to 4:30

JUNIOR COLLEGE COURSES

1. PREPARATION OF FOOD AND FOOD SUPPLY. Fundamental principles underlying the choice and technique of the preparation and service of human food. Prerequisites or parallel, Inorganic Chemistry 1, Biology 1, Household Ad. 2. Spring quarter. Five credits.

Lec. M. W. F. 2:50; lab. T. Th. 10:30 to 1:00

2. FOOD ECONOMICS. General methods of food cultivation; production; transport; protection; preservation; preparation and conservation. Diet accessories. Preparation of food with due regard to economic and nutritive considerations. Nutritional, economical and other influences affecting choice and amount of food. Prerequisites or parallel, Foods 1, Bacteriology 2, Physics 1, Physiology 1 and 2. Winter and Spring quarters. Six credits.

Lec. T. Th. 8:00; lab. T. 2:00

SENIOR COLLEGE COURSES

4. DIETETICS AND NUTRITION. The principles of human nutrition applied to various dietaries and their construction. Prerequisites or parallel, Organic Chemistry 18, Physiological Chemistry 7, Household Ad. 1, 4, 5. Thruout the year. Nine credits.

Lec. M. W. F. 8:00; lab. T. Th. 9:40 to 12:10

5. INSTITUTIONAL COOKERY. This course deals with the planning of menus and preparation of food in large quantities. Prerequisites or parallel, Foods 2, Chemistry 7, Household Ad. 3, 6, 7. Thruout the year. Nine credits.

Lec. M. W. 8:00; lab. T. Th. 9:40 to 12:10

6. SURVEY COURSE. This course is designed to review educational principles and practice as applied to Food and Dietetics. Spring quarter. Five credits.

Daily, 8:50

GEOLOGY

PROFESSOR WILLIAM PETERSON

VOCATIONAL COURSES

1. **PHYSIOGRAPHY.** Special emphasis on the intermountain region. Winter quarter. Five vocational credits.

Daily, 11:20

JUNIOR COLLEGE COURSES

2. **GENERAL GEOLOGY.** Dyanmic, structional, and historical, geology. The changes the earth's surface is now undergoing and the forces which produce them, as a means of interpreting the past. Laboratory study of the common rocks and rock-forming minerals, with special stress on the soil product resulting from rock disintegration. A careful study of the geological development of the North American continent. Field trips to points during fall and spring with written reports. Prerequisites, Chemistry 1, Zoology 2. Three hours thruout the year. Nine credits. Not open to Freshmen.

Sec. 1. M. W. F. 8:00

Sec. 2. Daily, Winter and Spring quarters, 8:50

3. **ECONOMIC GEOLOGY.** The first part of the course will deal with the non-metals with special emphasis on mineral fertilizers; the second part, with metals, their origin and economic uses. Either term may be taken without the other. Prerequisite, Geology 2. Three hours thruout the year. Nine credits.

M. W. F. 9:40

4. **MINERALOGY.** Individual laboratory work in blow-pipe analysis and determinative mineralogy. Prerequisite, Chemistry 1. One recitation and two laboratory periods. Nine credits. Laboratory fee \$2. Students may start any time.

Lec. T. 9:40; lab. T. Th. 2 to 4:30

5. GEOLOGY OF GROUND WATER. A study of structure to determine the cause of springs, artesian wells, etc. Structural characteristics that will yield water, either thru tunneling or boring. Prerequisites, Geology 1 or 2, and Physics 1. Five hours. Winter quarter. Five credits.

Daily, 10:30

SENIOR COLLEGE COURSES

6. ADVANCED PHYSIOGRAPHY. For students who wish a more complete knowledge of physiographic features and processes than can be given in Geology 1. Prerequisite, Geology 2. Fall quarter. Three credits.

Daily, 11:20

7. PETROLOGY. The origin and formation of the different kinds of igneous rocks and methods for the determination of the minerals which compose them. Prerequisites, Geology 2 and 4, Chemistry 1. Lectures, reading, and laboratory work. Either quarter. Credit to be arranged.

8. Field methods necessary in mapping the detailed geology of an assigned area. Time and credit to be arranged.

9. LOCAL GEOLOGY. The relief of Utah and bordering states. Relation of the country rock and physical features to productive land areas. One piece of relief modeling is required from each student. Prerequisite, Geology 2. Three hours, two or three credits. Laboratory to be arranged. Fall or Spring quarters.

M. W. F. 11:20

10. GEOLOGY. Relief modeling, methods by which any topographic map may be converted into a true relief model, including either the geology or detailed geography as the student may select. Two or three credits. Either quarter. Laboratory fee \$2.

HISTORY

PROFESSOR DAINES

ASSISTANT PROFESSOR ROBINSON

VOCATIONAL COURSES

a. HISTORY OF CIVILIZATION, ANCIENT. Fall quarter. Three credits.

M. W. F. 10:30

Assistant Professor Robinson

b. HISTORY OF CIVILIZATION, MEDIEVAL. Winter quarter. Three credits.

M. W. F. 10:30

Assistant Professor Robinson

c. HISTORY OF CIVILIZATION, MODERN. Spring quarter. Three credits.

M. W. F. 10:30

Assistant Professor Robinson

JUNIOR COLLEGE COURSES

4a. MODERN EUROPE. To the close of the French Revolution. Fall quarter. Five credits.

Daily, 10:30

Professor Daines

4b. MODERN EUROPE. From the close of the French Revolution to 1914. Winter quarter. Five credits.

Daily, 10:30

Professor Daines

4c. MODERN EUROPE. The War of 1914. Spring quarter. Five credits.

Daily, 10:30

Professor Daines

5a. WESTERN U. S. HISTORY. First period. Fall quarter.
Two credits.

T. Th. 8:50

Professor Daines

5b. WESTERN U. S. HISTORY. Second period. Winter
quarter. Two credits.

T. Th. 8:50

Professor Daines

5c. WESTERN U. S. HISTORY. Third period. Winter quar-
ter. Two credits.

T. Th. 8:50

Professor Daines

6a. ANCIENT HISTORY. Greece, with a short survey of more
ancient nations. Three credits.

6b. ANCIENT HISTORY. History of Rome. Three credits.

9. HISTORY OF SCIENCE. Fall and Winter quarters. Four
credits.

T. Th. 2:00

Professor Daines

10. HISTORY OF ART. Winter quarter. Three credits.

M. W. F. 12:10

Professor Powell

11a. HISTORY OF DOMESTIC ARCHITECTURE. Winter quar-
ter. Three credits.

M. W. F. 10:30

Professor Fletcher

11b. PERIOD FURNITURE AND HISTORIC STYLES. Spring
quarter. Three credits.

M. W. F. 10:30

Professor Fletcher

SENIOR COLLEGE COURSES

3a. ENGLISH HISTORY. Political and social history of Great Britain to 1689. Fall quarter. Three credits.

M. W. F. 9:40

Assistant Professor Robinson

3b. ENGLISH HISTORY. Continuation of 3a, from 1689 to the present. Winter quarter. Three credits.

M. W. F. 9:40

Assistant Professor Robinson

3c. ENGLISH HISTORY. Development of the English Constitution. Spring quarter. Three credits.

M. W. F. 9:40

Assistant Professor Robinson

12a. U. S. CONSTITUTIONAL HISTORY. First period. Fall quarter. Three credits.

M. W. F. 2:00

Professor Daines

12b. U. S. CONSTITUTIONAL HISTORY. Second period. Winter quarter. Three credits.

M. W. F. 2:00

Professor Daines

12c. U. S. CONSTITUTIONAL HISTORY. Third period. Spring quarter. Three credits.

M. W. F. 2:00

Professor Daines

HORTICULTURE

PROFESSOR MERRILL

MR. ABELL

MR. HANSEN

The following courses are required of all students majoring in Horticulture: 2, 4, 5, 8, 11, 12, 14, and 16.

VOCATIONAL COURSES

a. FRUIT-GROWING IN THE WEST. A study of the principles and practices governing fruit production in arid regions. Two lectures and one laboratory period. Fall quarter. Three credits.

Lec. T. Th. 8:50; lab. M. 2 to 4:30

Professor Merrill

b. PRACTICAL HORTICULTURE. Horticultural operations. Budding, grafting, pruning, spraying, plant propagation, greenhouse and nursery practice. Two lectures and one laboratory period. Winter quarter. Three credits.

Lec. T. Th. 8:50; lab. M. 2 to 4:30

Mr. Abell and Mr. Hansen

c. THE PRINCIPLES OF GARDENING. Planning, planting, and care of garden. Study of varieties and garden operations. Production emphasized. Two lectures and one laboratory period. Spring quarter. Three credits.

Lec. T. Th. 8:50; lab. M. 2 to 4:30

Mr. Abell

JUNIOR COLLEGE COURSES

1a, 1b, 1c. PRINCIPLES OF HORTICULTURE. This is a course in general horticulture of Junior College grade designed especially for agricultural students not specializing in horticulture, but who desire to become acquainted with the general field of horticultural information and practice. Thruout the year, but each quarter's work is complete and may be taken separately. Prerequisite, Botany 2. Two lectures and one laboratory period. Three credits each quarter.

Fall Quarter. (1a). *Orchard and Small Fruits.*

Lec. T. Th. 11:20; lab. F. 2 to 4:30

Professor Merrill

Winter Quarter. (1b). *Horticultural Technique.*

Lec. T. Th. 11:20; lab. F. 2 to 4:30

Professor Merrill and Mr. Hansen

Spring Quarter. (1c). *Vegetable and Landscape Gardening*. This course is also planned to meet the needs of Home Economics students.

Lec. T. Th. 11:20; lab. F. 2 to 4:30

Mr. Abell and Mr. Hansen

2. **POMOLOGY.** Principles underlying home and commercial fruit growing. Three lectures. Fall quarter. Three credits.

Lec. M. W. F. 10:30

Professor Merrill

3. **PLANT PROPAGATION.** Methods in horticultural technique. Studies in budding, grafting, reproduction by seeds and vegetative parts, and nursery practice. Prerequisite, Botany 1 or 2. One lecture and two laboratory periods. Winter quarter. Three credits.

Lec. F. 11:20; lab. W. F. 2 to 4:30

Mr. Abell

4. **PRACTICAL POMOLOGY.** Practical problems pertaining to orchard practice—pruning, frost injury and prevention, planting, spraying, thinning, fertilizing, and growth of cover crops. Prerequisite, Horticulture 2. One lecture and two laboratory periods. Spring quarter. Three credits.

Lec. F. 10:30; lab. T. Th. 2 to 4:30

Mr. Abell

5. **OLERICULTURE.** Principles and practices underlying production of vegetable crops, and methods of handling for home and commercial purposes. Study of varieties and their adaptations. Two lectures and one laboratory period. Fall quarter. Three credits.

Lec. T. Th. 10:30; lab. M. 2 to 4:30

Mr. Abell

6. **PLANTS UNDER GLASS.** Vegetable forcing. Crops grown in cold frames, hot-beds, and greenhouses. Soil composting and

managing. Prerequisite, Horticulture 5. One lecture and two laboratory periods. Winter quarter. Three credits.

Lec. W. 10:30; lab. T. Th. 2 to 4:30

Mr. Abell

7. SMALL FRUITS. Propagating, cultivating, pruning, harvesting, and marketing of berries, currants, and grapes. History and characteristics of varieties. Two lectures and one laboratory period. Winter quarter. Three credits.

Lec. T. Th. 10:30; lab. M. 2 to 4:30

Professor Merrill

8. LANDSCAPE GARDENING. Principles underlying home and city beautification. Preparation of ground, selection and grouping of ornamental plants, care of lawns, designing of plans. Prerequisite, Botany 2. Two lectures and one laboratory period. Fall quarter. Three credits.

Lec. M. W. 11:20; lab. W. 2 to 4:30

Mr. Abell and Mr. Hansen

SENIOR COLLEGE COURSES

1. GENERAL HORTICULTURE. Study of the various phases of horticulture from the viewpoint of correlation with general or specialized farming. Intended primarily for Senior College agricultural students not specializing in horticulture. Three lectures and two laboratory periods. Spring quarter. Five credits.

Lec. M. W. F. 9:40; lab. T. Th. 2 to 4:30

Professor Merrill

9. LANDSCAPE DESIGN. Advanced practice in landscape art. Prerequisite, Horticulture 8. One lecture and two laboratory periods. Winter quarter. Three credits.

(Not given in 1918-19)

10. HOME FLORICULTURE. Propagation and care of plants useful for home decoration. Exterior plantings, flower beds, and borders. Designed for students in Home Economics as well as for

horticultural students. Two lectures and one laboratory period. Spring quarter. Three credits.

Lec. T. Th. 10:30; lab. T. 2 to 4:30

Mr. Abell and Mr. Hansen

11. SYSTEMATIC POMOLOGY. Variety characteristics and adaptations. Fruit scoring and preparation for judging fruit exhibits. Prerequisites, Horticulture 2 and 4. One lecture and two laboratory periods. Fall quarter. Three credits.

Lec. F. 11:20; lab. T. Th. 2 to 4:30

Professor Merrill

12. PLANT BREEDING. Fundamentals of Mendelism, genetics, and biometry. Study of hereditary characters and environmental variations and practical plant breeding work. Prerequisites, Horticulture 3, and Botany 3. Three lectures and two laboratory periods. Spring quarter. Five credits.

Lec. M. W. F. 11:20; lab. W. F. 2 to 4:30

Professor Merrill

13. HORTICULTURAL BY-PRODUCTS. Utilization of waste materials. Biochemistry of processes in plant products. Ripening, storage, decay, fermentation, canning operations. Prerequisites, Horticulture 2, 5, and 7, Botany 2, Chemistry 3, and Bacteriology 1. Two lectures and two laboratory periods. Fall quarter. Four credits.

(Not given in 1918-19)

14. HISTORY OF CULTIVATED PLANTS. Historical consideration of wild plants in nature from earliest times and their gradual adaptation to the uses of man. Two lectures. Winter quarter. Two credits.

Lec. M. W. 11:20

Professor Merrill

15. EXPERIMENTAL HORTICULTURE. Preparation for research in horticulture. History and tendencies of horticultural research thruout the world. Critical study of bulletins, theses,

and research publications. Extensive reading and reports. Reading knowledge of French and German desirable. Prerequisites, Horticulture 2, 3, 4, 5, 6, 7, 11, and 12, Botany 2 and 3, Chemistry 3, and Entomology 1. Five lectures. Spring quarter. Five credits. Time to be arranged.

16. SEMINAR. Review of current literature. For advanced students. One hour a week each quarter. Three credits. Time to be arranged.

17. RESEARCH. For students with adequate preparation. Time and credit to be arranged.

HOUSEHOLD ADMINISTRATION

PROFESSOR RAVENHILL

MISS UNDERWOOD

MISS HUNTER

MISS BEERS

VOCATIONAL COURSES

a. PRACTICAL HOUSEKEEPING. Plans and methods for daily house work. Helpful household tools, cleansing agents and their utilization. Household purchasing. Three lectures. Fall and Winter quarters. Six credits.

Lec. M. W. F. 11:20

b. THE CARE OF HUMAN LIFE IN THE HOME. This course deals with the rational care of human life at all ages, special attention being given to the details of child welfare and the needs of adolescence. Two lectures thruout the year. Six credits.

Lec. T. Th. 8:50

c. MANAGEMENT OF INSTITUTIONS. This course is designed to meet the needs of women called upon to cater for large num-

bers, or to manage big establishments. It deals with methods of purchase, selection of food and equipment, keeping of records, and other practical problems. Three lectures. Winter and Spring quarters. Six credits.

Lec. M. W. F. 11:20

d. ART IN THE HOME. A practical course in the decorating and furnishing of the entire house. Visits to stores for the purpose of selecting materials, will be a feature of this course. Two lectures and one laboratory. Spring quarter. Three credits.

Lec. M. F. 11:20; lab. T. 2 to 3:40

e. HOME NURSING AND FIRST AID IN EMERGENCIES. Common causes of ill health. First aid in home accidents. Care of the sick under home conditions. Observation of symptoms. Sick room diet and its preparation. Prerequisites or parallel, Gen. Ed. Science. Three lectures. Winter quarter. Three credits.

Lec. M. W. F. 8:00

f. PRACTICE HOUSEKEEPING. Residence for six weeks. Opportunity is given to apply to home conditions the principles of household economics as studied in the College. Fee \$5 per week. Three credits.

JUNIOR COLLEGE COURSES

1. HOUSEHOLD MANAGEMENT. Organization of daily routine of duties. Labor-saving methods and aids. Routine activities and emergencies. Maintenance of economic, sanitary and efficient conditions of the home. Consideration of the recreational, occupational, religious, social and other relations of the inmates. Fall and Winter quarters. Six credits.

M. W. F. 10:30

1a. HOUSEHOLD BUDGET. Details of household expenditures. Card indexes and inventories. The housekeeper as producer and consumer. Sales and bargains. Cooperative buying.

Prerequisites or parallel, Foods 11, Inorganic Chemistry 1, Biology 1. Spring quarter. Three credits.

M. W. F. 9:40

2. HOME NURSING AND FIRST AID IN EMERGENCIES. Scope of home nursing. Treatment of common ailments. First aid in home accidents. Care of the sick. Observation of symptoms. Sick room diet. Prerequisites or parallel, Inorganic Chemistry 1, Biology 1, Physics 1. Spring quarter. Three credits. (Elective.)

M. W. F. 2:00

SENIOR COLLEGE COURSES

3. PRACTICE HOUSEKEEPING. Residence for six weeks. Opportunity is given to apply to home conditions the principles of household economics as studied in the College. Fee \$5 per week. Three credits.

4. FACTORS IN HUMAN EFFICIENCY. Study of factors which affect the quality of human life. Domestic methods in the past and present in relation to efficiency of the individual and national vitality. Prerequisites or parallel, Foods 2, Clothing 1 and 2. Fall and Winter quarters. Six credits.

M. W. F. 10:30

5. CARE OF CHILD LIFE AND ADOLESCENCE. Problems of parenthood and prenatal development. The physiology of growth in childhood and adolescence. Phases of development in nervous, circulatory and other systems. The relation of physical growth to mental and moral development. Brief study of abnormalities in early life. Prerequisites or parallel, Household Ad. 1, Physiology 1 and 2, Bacteriology 2. Spring quarter. Five credits.

Daily, 11:20

6. INSTITUTIONAL ADMINISTRATION. A course in the purchase in bulk of goods and equipment. Methods of record keeping, making of menus, general methods of sanitation and care

of institutions and their inmates. Prerequisites or parallel, Foods
2. Winter and Spring quarters. Six credits.
M. W. F. 11:20

7. INSTITUTIONAL LAUNDRY. This course is designed to give training in laundry methods as applied to institutions, hotels, restaurants, and large establishments. Fall quarter. Three credits.
M. W. F. 11:20

8. SURVEY COURSE. This course is designed to review educational principles and practice as applied to Household Administration. Spring quarter. Five credits.
Daily, 8:50

IRRIGATION AND DRAINAGE

ASSOCIATE PROFESSOR ISRAELSEN
PROFESSOR RAY B. WEST
MR. HANSON

Students who major in Irrigation and Drainage will be required to complete courses 1, 2, 4 and 6 or their equivalents, and to present a thesis concerning some special problem to be assigned by the Department.

VOCATIONAL COURSES

a. FARMER'S COURSE IN IRRIGATION AND DRAINAGE. Practical information on measurement of irrigation water, construction of small headgates and ditches, methods of handling irrigation water on different types of soil, and common problems in farm drainage. Five lectures. Winter quarter.

M. W. F. 9:40

Professor Israelson and Mr. Hanson

JUNIOR COLLEGE COURSES

1. IRRIGATION AND DRAINAGE PRACTICE.* Water measurement, effect of soil and plant on time and frequency of irrigation, duty of water, design of farm ditches and preparation of land for irrigation, pumping for irrigation, and methods of farm drainage. Designed especially for students in agriculture. Sec. 1, Fall quarter; Sec. 2, Winter quarter. Five credits.

Lec. M. W. F. 8:50; lab. M. W. 2 to 4:30

Professor Israelsen and Mr. Hanson

2. HYDRAULICS. Laws of liquids in motion and at rest, flow in natural and artificial channels, and elementary principles of water power development. Prerequisite, Mathematics 2 or its equivalent. Winter quarter. Five credits.

Daily, 10:30

Professor West

SENIOR COLLEGE COURSES

3. DESIGN OF DRAINAGE SYSTEMS. Preliminary survey, location of drains, flow in drains and in open channels, and construction of drainage systems with special reference to the drainage of irrigated lands. Prerequisite, Hydraulics. Spring quarter. Five credits.

Lec. M. W. F. 8:50; lab. M. W. 2 to 4:30

Professor Israelsen

4. DESIGN OF IRRIGATION SYSTEMS. Sources of water supply, diversion works, canal alignment and cross section, flumes, drops, and spillways. Prerequisites, Hydraulics and strength of materials. Fall and Spring quarters. Ten credits.

Lec. M. W. F. 9:40; lab. T. Th. 2 to 4:30

Professor West

5. MANAGEMENT AND OPERATION OF IRRIGATION SYSTEMS.

*This course is listed also as Agronomy 10, and may be applied as major or minor in the Department of Agronomy, School of Agriculture

Delivery of water to irrigators, annual water charges, operation costs. Fall quarter. Three credits.

Lec. M. W. F. 11:20

Professor Israelsen

6. IRRIGATION INSTITUTIONS. Water right doctrines, laws governing the adjudication and acquirement of water rights and the distribution of water, organization of irrigation enterprises. Prerequisite or parallel, a general course in Economics or Sociology. Winter quarter. Three credits.

Lec. M. W. F. 11:20

Professor Israelsen

7. SEMINAR. Papers and discussions upon problem concerning some phase of irrigation or drainage development. Required of students who major in irrigation and drainage. One period. Winter quarter. One credit. Hour to be arranged with instructor.

Professors Israelsen and West

8. RESEARCH. Seniors who major in irrigation and drainage may elect special problems for investigation. Hours and credits to be arranged with instructor.

Professor Israelsen or Professor West

Note—Agronomy 6 (Soils) may be applied as major or minor in the Department of Irrigation and Drainage, School of Agricultural Engineering.

LIBRARY ECONOMY

MISS HATTIE SMITH

1. GENERAL REFERENCE. Classification and arrangement of books; the card catalog; reference books. Text, "List of Refer-

ence Books in the Utah Agricultural College Library." One hour thruout the year. Three credits.

W. 10:30

Miss Smith

2. BIBLIOGRAPHY. Agricultural, scientific, and technical literature of learned societies, special periodicals, and government publications. Lectures by professors; each student compiles a bibliography. One hour thruout the year. Three credits.

(Not given in 1918-19)

MATHEMATICS

PROFESSOR SAXER

VOCATIONAL COURSES

a. VOCATIONAL ALGEBRA. A brief course in elementary algebra. Daily for twelve weeks during the Summer quarter.

b. PLANE GEOMETRY. Fall and Winter quarters. Ten credits.

Daily, 8:50

c. ARITHMETIC. Applied or vocational arithmetic for winter course students. Winter quarter. Five credits.

Daily, 11:20

JUNIOR COLLEGE COURSES

2a. ELEMENTARY ANALYSIS. Elementary graphical methods for presenting facts. Relation of the graph to arithmetic, algebra, and geometry. Fall quarter. Three credits.

M. W. F. 9:40

2b. ELEMENTARY ANALYSIS. Graphical and algebraical solution of triangles. Trigonometry and use of the trigonometric

tables. Prerequisite, Mathematics 2a. Winter quarter. Three credits.

M. W. F. 9:40

2c. ELEMENTARY ANALYSIS. Use of logarithms, slide rule, etc. Progressions, compound interest, and annuities. Prerequisite, Mathematics 2b. Spring quarter. Three credits.

M. W. F. 9:40

4. SOLID GEOMETRY. Spring quarter. Five credits.
Daily, 8:50

5. COLLEGE ALGEBRA. Fall quarter. Five credits.
Daily, 10:30

6. TRIGONOMETRY. Winter quarter. Prerequisite, Mathematics 5. Five credits.
Daily, 10:30

SENIOR COLLEGE COURSES

7a. ANALYTIC GEOMETRY. Fall quarter. Five credits. Prerequisite, Mathematics 2 or 6.
Daily, 8:00

7b. DIFFERENTIAL CALCULUS. Winter quarter. Five credits. Prerequisite, Mathematics 7a.
Daily, 8:00

7c. INTEGRAL CALCULUS. Spring quarter. Five credits. Prerequisite, Mathematics 7b.
Daily, 8:00

8. DIFFERENTIAL EQUATIONS. Thruout the year. Six credits. Prerequisite, Mathematics 7.
T. Th. 10:30

10. GENERAL ASTRONOMY. Fall quarter. Five credits. Prerequisites, Physics 1 and Mathematics 2 or 6.
Daily, 11:20

12. MATHEMATICAL THEORY OF INVESTMENT. Spring quarter. Five credits. Prerequisite, Mathematics 2 or 5.
Daily, 11:20

MECHANIC ARTS

PROFESSOR R. B. WEST
 ASSOCIATE PROFESSOR HANSEN
 ASSISTANT PROFESSOR PULLEY
 ASSISTANT PROFESSOR NEWEY
 MR. SWENSON

A deposit of \$3 is required for each shop course.

FORGING AND GENERAL BLACKSMITHING

ASSISTANT PROFESSOR NEWEY

VOCATIONAL COURSES

FORGE PRACTICE a, b, c. Forging, welding, tempering, tool making and other operations essential to forge shop work. Three periods daily, each quarter. Each course, five credits.

Sec. 1. 8 to 10:30; Sec. 2. 2 to 4:30

d. ADVANCED SHORT COURSE. For students who have had some work but cannot fit the regular schedule. Work selected from the regular courses. Time and credits to be arranged with instructor.

e. SHORT COURSE. Select work from Forge Practice a, for students who cannot spend each day in the shop; especially suitable for agricultural and engineering students or for any one wishing to use blacksmith tools. Ten periods a week, each quarter. Three credits.

Demonstration Periods. With the exception of the Demonstration Period the student schedule may be irregular.

Sec. 1. T. 8 to 10:30; Sec. 2. 2 to 4:30

Sec. 3. W. 8 to 10:30; Sec. 4. 2 to 4:30

JUNIOR COLLEGE COURSES

FORGE SHOP OPERATIONS, 1, 2, 3. Plow work, spring work, axle and tire setting, horseshoeing, brazing and acetylene weld-

ing. Prerequisite, Forge Practice. Three periods daily, each quarter. Each course, five credits.

Sec. 1. 8 to 10:30; Sec. 2. 2 to 4:30

ADVANCED SHOP PRACTICE, 4, 5, 6. In this course the student may emphasize any line of blacksmith work that suits his particular needs. Prerequisite, Forge Shop Operations. Three periods daily, each quarter. Each course, five credits. Counts also in Senior College.

Sec. 1. 8 to 10:30; Sec. 2. 2 to 4:30

AUTOMOBILE REPAIRS, 7, 8, 9. The work consists of repairing bodies, wheels, springs, and axles. Daily, each quarter. Counts also in Senior College.

Sec. 1. 8 to 10:30; Sec. 2. 2 to 4:30

FOUNDRY. Operated for demonstration and the making of castings. If a sufficient number of students apply, the foundry will run for instructional purposes also.

MACHINE AND AUTOMOBILE WORK

ASSISTANT PROFESSOR PULLEY

In the following courses due consideration is given to: the materials used in the construction of machinery, the methods of properly executing the work, and problems relating to the processes involved. The exercises are chosen with reference to their practical application in repair work.

VOCATIONAL COURSES

c. SHORT COURSE. Exercises selected from Courses 1, 2, 3. One credit per quarter.

M. W. F. 2 to 4:30

d. ADVANCED SHORT COURSE. Work selected from Courses 3, 4, 5. One credit per quarter

M. W. F. 2 to 4:30

JUNIOR COLLEGE COURSES

1. BENCH WORK. Filing, chipping, drilling, fitting, valve grinding, tap and die work. Five credits.

Daily, 2 to 4:30

2. BENCH, PLANER AND SHAPER. Soldering, babbiting and scraping bearings, simple planer and shaper work, light vulcanizing. Five credits.

Daily, 2 to 4:30

3. ADVANCED PLANER AND LATHE. Planing and shaping of keyways, T-slots, angular and curved surfaces. Straight and taper turning, valve facing, etc. Five credits.

Daily, 2 to 4:30

4. LATHE WORK. (Continued.) Mandrel and chuck work. Straight and angular facing and boring. Blank screws, bushings, collars, washers, etc. Five credits.

Daily, 2 to 4:30

5. ADVANCED LATHE, AND MILLING MACHINE. Thread cutting and fitting. Drive and running fits, bolts and nuts, screws, repair parts, etc. Five credits.

Daily, 2 to 4:30

6. LATHE AND MILLING MACHINE WORK. (Continued.) Face plate work, spur gears, shaft couplings, and more difficult repair parts. Five credits.

Daily, 2 to 4:30

SENIOR COLLEGE COURSES

7, 8, 9. LATHE, MILLING AND GRINDING MACHINE. Involving operations connected with the construction of simple tools; as mandrels, taps, tap wrenches, etc.

10, 11, 12. SIMPLE MACHINE CONSTRUCTION. Factory methods and interchangeable manufacture. Time and credits to be arranged.

Automobile and Tractor Work

1. AUTOMOBILE LABORATORY WORK. Inspection of the various car components: running gear, engine and auxiliaries, fuel, ignition, lubricating, cooling and control systems, will be examined as to construction, operation, wear, troubles, etc. Taking down, assembling, and practice in making the various adjustments, light vulcanizing and driving will be given. Prerequisite or parallel, T. M. A. 3. Fall or Winter quarter. Three credits.

M. W. F. 8 to 10:30

2. AUTO AND TRACTOR REPAIR. Similar to preceding course, including like work on tractors. Winter quarter. Five credits.

Daily, 2 to 4:30

3. SHORT AUTO AND TRACTOR REPAIR COURSE. A one-month course in which the main points are given. Two credits. Given thru January. Repeated February and March.

Daily, 2 to 4:30

MECHANICAL DRAWING

PROFESSOR POWELL

PROFESSOR RAY B. WEST

JUNIOR COLLEGE COURSES

1. THE USE AND CARE OF INSTRUMENTS. Applied Geometry, lettering, and orthographic projection. Fall and Winter quarters. Three credits.

Daily, 10:30 to 12:10

Professor Powell

2. DEVELOPING SURFACES AND INTERSECTION. Pictorial representation. Fall and Winter quarters. Three credits. Prerequisite, Drawing 1.

Daily, 10:30 to 12:10

Professor Powell

3. WORKING DRAWINGS AND TECHNICAL SKETCHING. Win-

ter and Spring quarters. Three credits. Prerequisite, Drawing 2.
Daily, 10:30 to 12:10

Professor Powell

4. ARCHITECTURAL DRAWING. Drawing of plans, elevations, and details. Fall, Winter and Spring quarters. Three credits. Prerequisite, Drawing 3.

Daily, 10:30 to 12:10

Professor Powell

5. Drawing of plans, elevations, sections and details. Drawing of plans for grounds, gardens, and outbuildings. Winter and Spring quarters. Three credits. Prerequisite, Drawing 4.

Daily, 10:30 to 12:10

Professor Powell

6. PERSPECTIVE. Pencil, crayon, pen, and wash drawings and rendering in color. Spring quarter. Three credits. Prerequisite, Drawing 5.

Daily, 10:30 to 12:10

Professor Powell

7. MACHINE DRAFTING. Each quarter. Three credits.

Daily, 10:30 to 12:10

Professor Powell

8. ENGINEERING DRAWING. The drawing of engineering structures in orthographic projection. Prerequisites, Mechanical Drawing 1, 2, and 3. Each quarter. Three credits.

Daily, 10:30 to 12:10

Professor R. B. West

9. AGRICULTURAL DRAWING. Exercises in orthographic projection especially applicable to agricultural work. Prerequisites, Mechanical Drawing 1 and 3. Each quarter. Three credits.

Daily, 10:30 to 12:10

Professor R. B. West

SENIOR COLLEGE COURSES

10. DESCRIPTIVE GEOMETRY. Of practical value to the mechanic and engineer in reading working drawings and in solving graphical problems. The point, line, plane, and simple solid are studied. Prerequisites, Mechanical Drawing 1, 2, and 3. Each quarter. Three credits.

Daily, 10:30 to 12:10

Professor R. B. West

TECHNOLOGY OF MECHANICAL ARTS

PROFESSOR R. B. WEST

ASSOCIATE PROFESSOR HANSEN

ASSISTANT PROFESSOR PULLEY

ASSISTANT PROFESSOR NEWBY

JUNIOR COLLEGE COURSES

1. A SURVEY OF THE TRADES. History and development; methods of learning a trade; apprenticeship and trade school; problems of industrial development and factory life. Fall quarter. Two credits.

Assistant Professor Newby

2. MECHANISM. The transmission of motion by links, levers, cams, belts, chains, and gears. Practical applications to machines and automobiles. Prerequisite, Mechanical Drawing "a" or Geometry. Fall quarter. Two credits.

M. W. F. 10:30

Assistant Professor Pulley

3. AUTOMOBILES. A thoro treatment as to construction, operation and care. Types, engine details, fuel, ignition, lubricating, cooling, lighting and starting systems. Fall or Winter quarter. Five credits.

Daily, 11:20

See Machine and Automobile Work for laboratory work.

4. WOOD FINISHING. Paints, pigments, oils, and their manufacture. Water, oil, and spirit stains; wash finish. Varnish, —kinds and their preparation; rubbing and hand polish. Three lectures a week, one quarter. Two credits. (May be taken any quarter, if sufficient students apply.)

Associate Professor Hansen

SENIOR COLLEGE COURSES

5. HOUSE BUILDING AND CONTRACTING. Methods of construction: the frame, two-brick, three-brick, stucco, shingle, cement block, and stuccoed hollow tile; comparative cost and economy of each; interior finishing. Five hours. Winter and Spring quarters.

Daily, 10:30

Professor R. B. West

See Rural Architecture 9.

6. SHOP PROBLEMS. The application of mathematics to the trades; practical methods of estimating quantities of material, calculating costs, and finding speeds of machines; the use of geometry in the trades. Fall or Winter quarters. Five credits.

Daily, 10:30 to 11:20

Assistant Professor Newey

7. MATERIALS OF CONSTRUCTION. The chemistry of iron, steel, alloys, etc., and their special use in machine parts; strength, composition, and proper use of woods, plaster, glass, glue, paints, cement, brick, etc., in building. Five hours. Fall quarter. Five credits.

Daily, 10:30

Professor R. B. West

8. AVIATION. A course dealing with the airplane and airplane engines and aviation practice. Spring quarter. Five credits.

Daily, 11:20

WOODWORK AND HOUSEBUILDING

ASSOCIATE PROFESSOR HANSEN

MR. SWENSON

MR. HUGHES

VOCATIONAL COURSES

CARPENTRY, a, b, c. Fundamentals. Scarfing, mortising, dovetailing, and jointing; panels, sashes, doors, and cupboards. Thoro practice in tool sharpening, and proper handling of tools are emphasized. Three periods daily thruout the year. Fifteen credits.

Associate Professor Hansen

CARPENTRY d. Farm Carpentry. This course consists of making simple articles used on the farm such as nail boxes, troughs, feed hoppers, trestles, gates, grindstone frames, beehives, etc.; also rafter cutting and tool sharpening. Nine periods a week. Three credits. (May be had any quarter. May also be completed in two weeks, by working all day.)

Associate Professor Hansen

CARPENTRY e. Short Courses for beginners. For students who cannot spend every day in the shop; suitable for any who wish to do farm woodwork. Nine periods a week. Three credits. (May be taken any quarter.)

Associate Professor Hansen

JUNIOR COLLEGE COURSES

CARPENTRY 1, 2, 3. Machine Work. The use of wood-working machinery, building a modern work bench and tool chest; also elementary and advanced wood turning. Prerequisite, Carpentry c. Three periods daily thruout the year. Fifteen credits.

Mr. Swenson

CARPENTRY 4, 5, 6. Cabinet Making and Housebuilding. Furniture in fir and oak, staining, fuming, and finishing; framing, roofing, door and window frames. Prerequisite, Carpentry 3. Three periods daily thruout the year. Fifteen credits.

Mr. Swenson

CARPENTRY 10. Wood Carving. Simple articles in straight and curved lines, simple conventional ornaments, and natural foliage. Time and credits to be arranged with the instructor.

Mr. Hughes

SENIOR COLLEGE COURSES

CARPENTRY 7, 8, 9. Fancy Furniture. Mahogany and other expensive wood are used; veneering, inlaying, and hand polishing. Prerequisite, Carpentry 6. Three periods daily thruout the year. Fifteen credits.

Mr. Swenson

CARPENTRY 11. Pattern Making. Kind of work and credit to be arranged with the instructor.

Mr. Swenson

CARPENTRY 12. Advanced Short Course. For students who have had some work and want to continue without taking the regular courses. Time and credits to be arranged with the instructor in charge.

Mr. Swenson

SHOPS OPEN ALL DAY

1st Section, 8:00—10:30

2nd Section, 10:30— 1:30

3rd Section, 2:00— 4:30

(Beginners and advanced students may take any section.)

METHODS IN EXPERIMENTATION AND EXTENSION

AGRICULTURAL SECTION

The purpose of the course in extension methods is to acquaint the advanced students, who may contemplate entering such activities, with the rapidly growing work of the Extension Division. The course, furthermore, is designed to act as a fitting school for practically trained agriculturists who plan to enter Extension work but whose knowledge is not organized according to college standards. The course will act as a cementing force among Extension workers themselves in that it will effect on their part a careful arrangement of their material and a careful comparison of their work with related work in the Extension Division. It will be planned to have the lecture material, in connection with the various subjects, given during different weeks and the demonstrations of certain different subjects grouped during a few weeks in order to enable County Agents and others to take advantage of them.

As an example of the nature of material presented under these various subjects, the following is given:

History and Organization of Extension Work, six lectures:

1. History of Extension Work
2. Purpose and Personnel
3. Relation to Interior Instruction, Experimentation, and

Federal Departments

4. The Plan of Organization
5. Reports, Records and Publications
6. Machinery of Instruction

Extension Work in Animal Husbandry, six lectures:

1. Essential and Unessential Facts
2. Essential and Unessential Facts (continued)
3. Method of Presentation
4. Method of Presentation (continued)

5. Demonstration (on Cache Valley Farm)
6. Demonstration (on Cache Valley Farm)

COURSES

1a. Lectures and demonstrations in the methods of instruction in Agricultural Extension work. Two lectures a week thruout the year.

Schedule of subject matter and lectures:

History and Organization of Extension Work.....	6	periods
Farmers' Institutes and Schools.....	3	"
Agricultural Economics	9	"
Agricultural Engineering	3	"
Animal Husbandry	6	"
Dairying	4	"
Dry-Farming	4	"
Farm Management	6	"
Horticulture	3	"
Irrigation and Drainage	6	"
Seed Breeding and General Agronomy.....	9	"
Soils	2	"
Veterinary Science	3	"
The County Agent	3	"
Boys' Club Work	6	"
High School Club Work.....	3	"
Correspondence Extension Work	3	"
The Preparation of Exhibits.....	2	"
Review and Summary	3	"

HOME ECONOMICS SECTION

The ever-increasing need for workers in the Extension field makes imperative a more intensive training in Extension methods than is obtained in a Home Economics course. The work offered in this course is designed to cover the activities that come within the range of the home and particularly those of the farm home,

as well as to fit the field worker to handle with ease, the various phases of Extension work. Students desiring recommendations for Extension work in this or other States should take this course.

COURSES

1b. Two lectures a week thruout the year.

PUBLIC SPEAKING. A pleasing platform address and the absence of mannerisms are valuable assets to an Extension worker. The ability to enunciate distinctly and to pitch the voice to suit conditions are a necessity. The course includes vocalization, the giving of talks previously prepared on topics connected with the work, and extemporaneous speaking.

FIELD METHODS. Actual experience in the field will be a part of this course. The history of Extension work in Home Economics, general study of phases of Extension work, program making, preparation of talks, preparing demonstrations and exhibits, project making, reports, are all included.

HOME GARDENING. The course teaches a knowledge of varieties, correct time and methods of planting, planning the garden as to space, number of rows and amount of seeds, also general care.

POULTRY RAISING. The increase in poultry stock is an opening for women to become producers. Housing, care and feeding of young chicks, incubation, general care of poultry, feeding for increased egg production, and preserving of eggs are included.

DAIRYING. Better methods in making butter on the farm, uses of milk and its by-products are handled in this course.

The entire course would be valuable not only to those desiring to enter the Extension field, but also to teachers of Home Economics.

2. METHODS IN EXPERIMENTATION.

a. Methods and principles of research as applied to agriculture. Winter term.

b. Experimental work in home problems in bacteriology, infant feeding, household chemistry or working out of home equipments, or in any problems brought in from the field.

Care will be taken not to duplicate other courses and an effort will be made to utilize in actual practice material obtained in classroom and laboratories.

MILITARY SCIENCE AND TACTICS

STEPHEN ABBOT, Captain U. S. A., Retired, Professor of Military Science and Tactics.

HAROLD R. HAGAN, Major R. O. T. C., Assistant Professor.

JAMES McGRATH, Sergeant U. S. A., Retired, Instructor.

In accordance with an Act of Congress approved June, 1916, an Infantry Unit of the Senior Division, Reserve Officers' Training Corps, has been established at this College. "The College authorities have agreed to establish and maintain a two-years' compulsory course of military training, as a minimum for its physically-fit male students, which course, when entered upon by any student, shall, as regards such student, be a prerequisite for graduation, to allot a minimum of an average of three hours per week, per academic year to military training and instruction during the first two academic years, and to arrange for five hours per week during the remainder of such student's course." The primary object of establishing units of the R. O. T. C., is to qualify by systematic and standard methods of training, students at civil educational institutions for Reserve Officers. The system of instruction presents a standardized measure of that military training which is necessary in order to prepare them to perform intelligently the duties of commissioned officers in the military forces

of the United States, and it enables them to be thus trained with the least practicable interference with their civil careers.

Men who register for more than one term are required to wear the prescribed uniform; that is the same as that of the U. S. Army, except that the letters, R. O. T. C., are worn on the collar, and on the arm. The War Department last year, allowed each member of the R. O. T. C., who was in uniform the whole school year, \$14.00 towards the cost of the uniform; \$7.00 to those who were present in uniform, one-half the school year.

Students who take the advanced course, and who sign a contract to pursue such courses of camp training as may be prescribed by the Secretary of War, are allowed thirty cents per day commutation of subsistence.

The War Department has supplied the College with rifles, bayonets and ammunition. The target range is within a mile of the College.

The four-year course prescribed by the War Department, was begun in September, 1917.

COURSE OF TRAINING FOR INFANTRY UNIT OF THE SENIOR DIVISION R. O. T. C.

THEORETICAL BASIC COURSE

Two hours per week.

Freshman Year:

Personal Hygiene, Infantry Drill Regulations, Military Organization, Service of Security and Information (Field Service Regulations), Theory of Combat, Infantry Drill Regulations, Military Policy, Camp Sanitation, Map Reading.

Sophomore Year:

Infantry Drill Regulations, Small Arms Firing Manual, Map Reading, Camp Sanitation, Military History, Sand Table Work, Constructing to Scale, Intrenchments, Field Works and Bridges.

ADVANCED COURSE

Junior Year :

Minor Tactics, Map Maneuvers, Company Administration, Military History, Property, Accountability, International Law.

Senior Year :

Tactical Problems, Map Maneuvers, Court-Martial Proceedings, International Relations of America, Rifle in War, Military History and Policy.

Each member of the R. O. T. C., during his course at College, is advised and urged to take courses in French.

The War Department Orders, under which the U. A. C. Military Department works, state, "It is presumed that each R. O. T. C. man will take during his college course, one modern language."

PRACTICAL

Three hours per week.

Men of all classes are drilled together.

Physical Drill, Manual of Physical Training, Koehler ; Infantry Drill, U. S. I. D. R., Aiming Drill, Nomenclature, Care of Rifle, Bayonet Exercise, First-Aid Instruction, Target Practice, Signaling, Ceremonies, Grenade Throwing.

Non-Commissioned Officers are appointed from students who have had one or two years training. In general, cadet officers are appointed from members of the Senior class.

MILITARY ART

PRACTICAL INSTRUCTION

1, 2, 3. PRACTICAL DRILL. First year. Three hours a week, three quarters. One credit each quarter.

M. W. F. 1:00

4, 5, 6. PRACTICAL DRILL. Second, third and fourth years. Three hours a week, three quarters. One credit each quarter.

M. W. F. 1:00

7. SIGNALING, FLAG, SEMAPHORE, TELEGRAPH, WIRELESS. Three hours a week. One credit each quarter.

M. W. F. 1:00

Professor F. West and Mr. S. Ewing

8. SAND TABLE WORK. One credit each quarter.

M. W. F. 1:00

Professor Powell

9. FIRST-AID TO THE INJURED. Three hours a week, Winter quarter. One credit.

M. W. F. 1:00

Professor Porter

10. ADVANCED MILITARY SKETCHING. Prerequisite, Course 6. Three hours a week, each quarter. One credit.

M. W. F. 1:00

Professors R. B. West and Powell

11. RANGE FIRING AND GALLERY TARGET PRACTICE. Three hours a week, each quarter. One credit.

Sergeant McGrath, U. S. A.

Reserve Officers' Training Corps men during their third and fourth years may substitute courses 7 to 11 for courses 4, 5, and 6, upon the approval of the Commandant.

Courses 7, 10, and 11 may be elected by any student, in addition to his regular work in the Department, upon the approval of the Commandant.

THEORETICAL INSTRUCTION

FIRST YEAR BASIC COURSE

21. INFANTRY DRILL REGULATION. Section 1, two hours a week, Fall quarter, one credit; Section 2, two hours a week, Winter quarter, one credit. Text: Infantry Drill Regulations.

T. Th. 9:40

Professor Hagan

22. FIELD SERVICE REGULATIONS. Two hours a week, Winter quarter, one credit. Texts: Infantry Drill Regulations, Field Service Regulations, Manual of Interior Guard Duty.

T. Th. 9:40

Professor Hagan

23. HYGIENE. Two hours a week, Spring quarter, one credit. Text: Military Hygiene, Ashburn. (Bacteriology 12.)

T. Th. 9:40

Professor Greaves

SECOND YEAR BASIC COURSE

24. MILITARY HISTORY. Two hours a week, Fall quarter. One credit.

T. Th. 9:40

Professor Daines

25. SMALL ARMS FIRING REGULATIONS. Two hours a week, Winter quarter. One credit. Text: Small Arms Firing Regulations.

T. Th. 9:40

Sergeant McGrath

26. MAP READING AND SKETCHING. Two hours a week, Spring quarter. One credit. Text: Military Sketching and Map Reading, Grieves.

T. Th. 9:40

Professor Powell

THIRD YEAR ADVANCED COURSE

27. DUTIES OF OFFICERS. Two hours a week, Fall quarter. One credit. Text: U. S. Army Regulations; Fundamentals of Military Service, Andrews.

T. Th. 9:40

Professor Abbot

28. MILITARY TACTICS. Two hours a week, Winter quarter. One credit. Text: Small Problems for Infantry, Bjornstad.

T. Th. 9:40

Professor Abbot

29. MINOR TACTICS. Two hours a week, Spring quarter. One credit. Text: Studies in Minor Tactics, Army Service Schools.

T. Th. 9:40

Professor Ray B. West

FOURTH YEAR ADVANCED COURSE

30. INTERNATIONAL LAW. Two hours a week, Fall quarter. One credit. Text: International Law, Davis.

T. Th. 9:40 to 10:30

Professor Robinson

31. RECENT MILITARY HISTORY, MILITARY POLICY. Two hours a week, Winter quarter. One credit.

T. Th. 10:30

Professor Daines

32. TACTICAL PROBLEMS. Two hours a week, Spring quarter. One credit. Text: 70 Problems Infantry Tactics, Morrison.

T. Th. 9:40

Professor Hagan

MODERN LANGUAGES AND LATIN

PROFESSOR ARNOLD

JUNIOR COLLEGE COURSES

FRENCH

1. FIRST YEAR FRENCH. Walther and Ballard's *Beginner's French* for grammar and conversation. About 400 pages of easy prose are read. Three hours thruout the year. Nine credits.

Sec. 1, M. W. F. 10:30; Sec. 2, M. T. Th. 11:20

MILITARY FRENCH. Course given each quarter in conversation. Especially for men who intend to enter military life. This

course or French 1 should be taken by all the men who expect to enter the advanced work of the R. O. T. C. Nine credits.

M. W. F. 8:50

SENIOR COLLEGE COURSES

2. SECOND YEAR FRENCH. Francois *French Composition* for grammatical review and writing in French; Lavissee's *Histoire de France* for conversation; translating works of nineteenth century authors. Prerequisite, French 1. Three hours thruout the year. Nine credits.

M. W. F. 9:40

3. READING course in Moliere's plays. One hour a week thruout the year. Prerequisite, two years of French. This course may be taken privately in the form of weekly reports. Three credits.

F. 9:40

4. French conversation. Games, dictation, and learning of a one-act play. One hour a week thruout the year. Three credits.

5. Research work in French Home Economics. Lectures and outside readings. One hour a week thruout the year.

T. 2:00

6. Research work in French science and agriculture, particularly horticulture. Lectures and outside readings.

Th. 2:00

Other hours may be arranged for French 3, 4, 5, or 6, if necessary.

GERMAN

2. SECOND YEAR GERMAN. Allen's *German Composition*; games and conversation. Many texts rapidly read, from nineteenth century authors; one scientific text. Three hours thruout the year. Nine credits.

M. W. F. 8:00

3. SCIENTIFIC GERMAN. Rapid reading of scientific texts during first half year with private reading in different subjects according to the course of each student. Specially recommended for students who have had two years' work in German in high school or college and are planning to do advanced work in agronomy, botany, or other sciences. Two hours thruout the year. Six credits.

T. Th. 8:00

4. Outside reading in science or literature. Weekly reports. One hour a week thruout the year. Hour to be arranged with instructor. Two credits.

SPANISH

SPANISH 1. Grammar, reading, and conversation. Twice a week thruout the year.

T. Th. 10:30

SPANISH 1. Grammar, conversation, and reading. Four times a week. One quarter. Four credits.

M. T. W. Th. 2:00

SPANISH 2. Business correspondence, reading and conversation. Twice a week. Spring quarter. Two credits.

T. Th. 10:30

LATIN

LATIN 1. Grammar and reading and study of English vocabulary. Two hours a week thruout the year. Six credits.

T. Th. 8:00

LATIN 2. A course in Caesar and Cicero will be given if five students apply. Credits will depend on amount of work done. Hours to be arranged with instructor.

MUSIC

PROFESSOR THATCHER, *elementary and advanced theory, appreciation, harmony, orchestra*

ASSOCIATE PROFESSOR JOHNSON, *choir, glee clubs, public school music, voice, piano*

MR. SMITH, *band*

Class work in music is free.

Students may enter the College orchestra or band without taking any other music course. Two credits. The College orchestra furnishes all the dance playing, students receiving compensation.

1. ELEMENTARY THEORY. The course reviews the ground work necessary for students desiring a more thoro knowledge of music. All major and minor keys and scales, intervals, tendencies, cycle of keys and triads, melody writing and sight singing. Two recitations a week thruout the year. Five credits.

T. Th. 11:20

2. APPRECIATION OF MUSIC. From text. Three hours thruout the year. Nine credits.

M. W. F. 11:20

3. ELEMENTARY HARMONY. (Text used.) Three recitations a week; home study, eight hours as a minimum. (At least two years of piano study or its equivalent must precede this course.) b. Applied music: (1) individual work, home study, six hours at least; (2) ensemble. Six hours thruout the year. Fifteen credits.

M. W. F. 10:30

Note.—For Courses 4 and 5 the home study increases.

4. ADVANCED HARMONY AND ANALYSIS. b. Applied music,

individual and ensemble. Prerequisite, Music 3. Five or six hours thruout the year. Fifteen credits.

5. COUNTERPOINT AND SMALL FORMS. (Text used.) b. Applied music, individual and ensemble. Prerequisite, Music 4. Five or six hours thruout the year. Fifteen credits.

6. ORCHESTRA.

T. Th. 4:30

7. CHOIR. One credit each term. To furnish music for chapel exercises and special occasions. Three times a week.

M. W. F. 12:10

8. U. A. C. GLEE CLUB. An organization of men, membership is limited in number and is decided by competition. Meets three times a week.

9. PUBLIC SCHOOL MUSIC. (Ability to play and sing required—also knowledge of theory and appreciation.) b. Applied music in choir and glee club.

The course deals with theory and methods of teaching, music supervision, class room demonstrations, child voice, conducting, institute work, yearly, monthly, and daily programs. Takes up all problems in music in the grades and high schools. Three recitations a week.

10. BAND. Three credits.

M. W. F. 4:30

PRIVATE INSTRUCTION may be had (the pupil paying the teacher's fee) in the following: *Voice, Piano, Violin, Orchestral* and *Band Instruments*. One credit a quarter in each course will be allowed if pupil is enrolled in *Applied Music* only.

RECITALS by advanced students are given once a month.

PEDAGOGY*

PROFESSOR STEINER

PROFESSOR BEELEY

PROFESSOR WILKINSON

The courses in this department may be taken by those students only who are preparing for Smith-Hughes work in Agriculture or Home Economics.

JUNIOR COLLEGE COURSES

1. VOCATIONAL PSYCHOLOGY. Five lectures. Spring quarter. Five credits.

Lec. Daily, 8:00

Professor Beeley

SENIOR COLLEGE COURSES

2. SCIENCE OF EDUCATION. Five lectures. Spring quarter. Five credits.

Lec. Daily, 8:50

Professor Beeley

3. RURAL EDUCATION. Five lectures. Fall quarter. Five credits.

Lec. Daily, 8:00

Professor Steiner

4. SECONDARY EDUCATION. Five lectures. Spring quarter. Five credits.

Lec. Daily, 11:20

Professor Beeley

5. METHODS OF TEACHING AGRICULTURE. Five lectures. Fall quarter. Five credits.

Lec. Daily, 8:50

Professor Steiner

*Given under the direction of the University of Utah.

6. TEACHER TRAINING IN AGRICULTURE. The student will teach a class in high school agriculture under supervision during the quarter. Winter quarter. Credits to be arranged.

Professor Steiner

7. METHODS OF TEACHING HOME ECONOMICS. Five lectures. Fall quarter. Five credits.

Lec. Daily, 9:40

Professor Wilkinson

8. TEACHER TRAINING IN HOME ECONOMICS. Supervised training in the teaching of high school home economics. Winter quarter. Credits to be arranged.

Professor Wilkinson

PHYSICAL EDUCATION

PROFESSOR WATSON

PROFESSOR R. O. PORTER

ASSISTANT PROFESSOR JOHNSON

ASSISTANT PROFESSOR JENSON

Work in physical education is arranged with the purpose of giving each student sufficient exercise to maintain physical health and a high degree of mental efficiency.

After careful physical examination work is prescribed to meet the need of each individual. Two hours of physical training on the gymnasium floor each week are required of all students.

Adequate opportunity is afforded all students to take part in class games and contests. Inter class sports are open to all students who have never won a letter or who are not trying for the teams.

Athletic competition with colleges and universities in the State and Rocky Mountain Conference forms an interesting part of the

work. Individual skill in athletics is obtained only after hours of hard work and continued sacrifice. The promotion of honor and college spirit thru athletic games and meets constitutes an important feature of the department.

COURSES FOR MEN

1. FOOTBALL. Practice in football technique, equipment; theory of defensive and offensive play; study of rules, duties of officials, schedule making, and general preparation for coaching. Fall quarter.

Daily, 4:30

2. TRACK AND FIELD ATHLETICS. Instruction and practice; how to choose men for different events; track rules and duties of officials; theory of training for endurance, speed, skill, strength; problems of temperament, climate, traveling and professionalism. Spring quarter.

Daily, 4:30

3. BASKETBALL. Instruction and practice; history, principles and technique of the game; methods of training and coaching; study of rules and duties of officials. Winter quarter.

Daily, 4:30

4. BASEBALL. Instruction and practice. Spring quarter.

Daily, 4:30

5. GYMNASIUM WORK. Required of all students. Swedish gymnastics, callisthenic drills and gymnasium games. Students taking the course must learn to swim before receiving credit. Fall, Winter, and Spring quarters.

Daily, Sec. 1, 9:40; Sec. 2, 10:30; Sec. 3, 11:20

6. WRESTLING. Instruction and practice. Winter quarter.

Daily, 4:30

7. SWIMMING. Instruction and practice. Fall, Winter, and Spring quarters.

T. Th. S. 4:30

8. FIRST AID TO THE INJURED. Treatment of emergencies and accidents in the home, on the street, on the athletic field; bandaging and transporting of the wounded. Fall quarter.

W. F. 12:10

PHYSICAL EDUCATION FOR WOMEN

The U. A. C., by vote of the Board of Trustees, has adopted uniform dress for College girls.

The department is established primarily for the physical betterment of the women of the institution. It strives to develop such physical habits as make for vigor and efficiency and counteract the sedentary life of the student.

11. Practical gymnastics. Designed to furnish activity which will overcome faulty posture and secure good motor control. The course consists of lectures in hygiene, general gymnastics, folk-dancing, games, swimming, and cross-country running. Five credits. Five times a week thruout the year. *Required for graduation.*

Sec. 1, daily, 9:40; Sec. 2, daily, 1:00

12. Advanced practical gymnastics. A continuation of Physical Education 11. Five credits. Five times a week thruout the year. *Required for graduation.*

Sec. 1, 2:00; Sec. 2, 11:20

13. Aesthetic and fancy dancing. An advanced course in which simple and advanced technique is emphasized. Gilbert, Chalif, and Hinman dancing; interpretative and dance composition are given. Three times a week thruout the year. Three credits. Open to all women who have completed Physical Education 11 and 12.

M. W. F. 2:50

14. Baseball, basketball, volley ball, cross-country running, tennis, field hockey, and swimming. Twice a week thruout the

year. Two credits. Open to all women who have completed Physical Education 11 and 12.

T. Th. 2:50

15. Social dancing for men and women. Instruction in the standardized modern dances. The year will be divided into periods of six weeks each. Section 1 will meet three times a week during the first priod; section 2, three times a week during the second period, and so on. As only a limited number can be accommodated in a section, the registration must be approved by a member of the department of Physical Education.

M. W. F. 4:30

16. Advanced Aesthetic Dancing. Open to women who have completed Physical Education 13. Three times a week thruout the year. Three credits.

PHYSICS

PROFESSOR F. L. WEST

MR. EWING

VOCATIONAL COURSES

a. GENERAL ELEMENTARY SCIENCE. A lecture demonstration course on applied chemistry, physics, and bacteriology. Three lectures a week thruout the year. Nine credits. No prerequisites.

Lec. M. W. F. 8:50

JUNIOR COLLEGE COURSES

1a, 1b, 1c. GENERAL PHYSICS. The elements of Physics, including mechanics, heat, electricity and magnetism, sound and light. Lectures are illustrated by experiments and lantern slides. Two recitations and one laboratory period thruout the year. Nine credits. Physics 1b (Electricity and Magentism) is open to winter course students.

Lec. T. Th. 8:50; lab. any afternoon 2 to 4:30

2a. APPLIED MECHANICS AND ENGINES. Prerequisite, high school physics. Three recitations and two laboratory periods. Fall quarter. Five credits.

Lec. M. W. F. 9:40; lab. M. W. or T. Th. 2 to 4:30

2b. APPLIED ELECTRICITY. Prerequisite, high school physics. Three recitations and two laboratory periods. Winter quarter. Five credits.

Lec. M. W. F. 9:40; lab. M. W. or T. Th. 2 to 4:30

2c. HEAT, LIGHT AND SOUND. Prerequisite, high school physics. Three recitations and two laboratory periods. Spring quarter. Five credits.

Lec. M. W. F. 9:40; lab. M. W. or T. Th. 2 to 4:30

3. ELEMENTARY APPLIED MECHANICS. Thermodynamics, steam and gasoline engines. Six credits.

(Not given in 1918-19)

4. APPLIED ELECTRICITY. Five recitations a week. Fall quarter. Five credits. Prerequisite, elementary physics.

(Not given in 1918-19)

5. CHEMICAL PHYSICS. Including the atomic theory; kinetic theory of gases; gaseous, liquid and solid states; solutions; thermochemistry and radioactivity with special emphasis on osmotic pressure and diffusion. Prerequisites, elementary physics and chemistry. Winter quarter. Five recitations. Five credits.

(Not given in 1918-19)

6. METEOROLOGY OR THE PHYSICS OF THE ATMOSPHERE. The methods of weather observations, predictions, frost warnings and the relation of climate to agriculture. Prerequisite, elementary physics. Winter quarter. Five recitations a week. Five credits.

Daily, 10:30

SENIOR COLLEGE COURSES

7. ADVANCED LABORATORY WORK. Three to fifteen credits.

Daily, 2 to 4:30

8. MECHANICS, LIGHT, SOUND, THERMODYNAMICS AND PHYSICAL CHEMISTRY. Prerequisite, calculus.

(Not given in 1918-19)

9. ELECTRICITY AND MAGNETISM. Six credits.

(Not given in 1918-19)

10. ALTERNATING CURRENT ELECTRICITY AND ITS APPLICATION TO INDUSTRY. Three recitations a week. Fall, Winter and Spring quarters. Nine credits.

(Not given in 1918-19)

11. TELEGRAPHY. Morse or International code. Any quarter. One credit a term.

Daily, 10:30

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR GREAVES

PROFESSOR R. O. PORTER

MR. CARTER

JUNIOR COLLEGE COURSES

1. PHYSIOLOGY. Movement, sensation, circulation, and respiration; questions of hygiene and sanitation. Three hours. Fall quarter. Five credits.

Daily, 8:50

Professor R. O. Porter

2. DIGESTION, ABSORPTION, AND METABOLISM. A continuation of Physiology 1. Digestion, absorption, metabolism and closely related subjects. Winter quarter. Five credits.

Daily, 8:50

3. PHYSIOLOGICAL CHEMISTRY. The transformations going on in the plant and animal organism. Spring quarter. Five credits.

Daily, 8:00

Professor Greaves

4. **PHYSIOLOGICAL CHEMISTRY.** May accompany the preceding course. Six hours' laboratory work a week. Winter quarter. Two credits. Laboratory fee \$1.

T. Th. 2 to 4:30

Professor Greaves

POLITICAL SCIENCE

PROFESSOR HENDRICKS

PROFESSOR DAINES

MR. BULLEN

VOCATIONAL COURSES

a. **INDUSTRIAL AND COMMERCIAL LAW.** The elementary principles of law relating to common business transactions, including contracts, sales, promissory notes and bills of exchange, contracts of common carriers, agency, partnership and corporations. Fall and Winter quarters. Ten credits.

Daily, 8:00

b. **CIVICS.** United States government; for the practical student. Five credits. Spring quarter.

Daily, 2:50

JUNIOR COLLEGE COURSES

1a. **THEORY OF GOVERNMENT.** Fall quarter. Three credits.
M. W. F. 8:50

1b. **POLITICAL PARTIES.** Winter quarter. Three credits.
M. W. F. 8:50

1c. **COMPARATIVE GOVERNMENT.** Spring quarter. Three credits.

M. W. F. 8:50

4. The law of contracts; the law of agency; the law of partnership and of commercial paper. Winter quarter. Ten credits.

Daily, 8:50

5. The law of real estate, of sales, of debtor and creditor, of suretyship; of insurance, of banks and bankruptcy, and of corporations.

(Not given in 1918-19)

SENIOR COLLEGE COURSES

6. IRRIGATION LAW, OR THE LAW OF WATERS. The right of appropriation, natural and artificial water courses, limitation of use, protection of rights, disposal of rights, percolating water, distribution of water, etc.

(Not given in 1918-19)

7. AMERICAN DIPLOMACY. Study of the principles and practice of American diplomacy. Spring quarter. Five credits.

Daily, 11:20

8. AMERICAN CONSULAR SERVICE. Critical analysis of our consular service.

See Economics and Sociology for related work.

RANGE MANAGEMENT

ASSISTANT PROFESSOR BECRAFT

1. A general course on range problems including reconnaissance, carrying capacity, range improvement and causes of deterioration, forage plants, poisonous plants, methods of handling livestock. Two lectures. Winter quarter. Two credits.

Lec. T. Th. 8:50, Room 179

Professor Becraft

SOCIOLOGY

PROFESSOR HENDRICKS

ASSISTANT PROFESSOR BROOKE

JUNIOR COLLEGE COURSES

2. RURAL SOCIOLOGY. The principles of sociological science applied to the problems of modern agricultural and rural communities. Spring quarter. Five credits.

Daily, 11:20

Professor Hendricks

SENIOR COLLEGE COURSES

1. PRINCIPLES OF SOCIOLOGY. The foundations of sociology; social organs, social structure, and social activities. Winter quarter. Five credits.

Daily, 8:50

Professor Hendricks

3. APPLIED SOCIOLOGY. Concrete applications of sociological principles to modern urban problems, of general political conditions. Spring quarter. Five credits.

Daily, 8:50

Professor Brooke

See Economics and Political Science for related work.

STENOGRAPHY AND TYPEWRITING

PROFESSOR P. E. PETERSON

MR. HOWELL

STENOGRAPHY

a. The fundamental rules of the Isaac-Pitman system of shorthand, the Centenary Edition being used. Five hours thruout the year. Fifteen credits.

Daily, 8:50

b. A continuation of "a," in which the rules of the system will be thoroly reviewed and applied. The work in the last quarter will include office training and business practice, in order to familiarize the student with the use of modern appliances. The attainment of speed will be a feature of this course, and the class will be open to the writers of any system of shorthand. Five hours thruout the year. Fifteen credits.

Daily, 10:30

SPECIAL. A special class will be held daily for such students as desire to take stenography during the Winter quarter, the work given being the same as Stenography "a." Five hours thruout the year. Winter and Spring quarters. Ten credits.

Daily, 2:50

TYPEWRITING AND PENMANSHIP

a. Correct fingering and proper manipulation of the machine. Five hours thruout the year. Three credits.

Daily, any hour

b. Daily exercises in which accuracy is required. Monthly speed tests. Five hours thruout the year. Three credits.

Daily, any hour

c. The development of a free, legible business hand. Thruout the year. Three credits.

M. W. F. 9:40

SHORTHAND AND TYPEWRITING

1. A class confined exclusively to students of College grade will be held daily. This will be an intensive course with the object of preparing men and women for teaching positions. Five hours thruout the year. Fifteen credits.

Daily, 11:20

TYPEWRITING

1. For College students. All stenographic students must

take this course, transcribing their notes on the machines. Five hours thruout the year. Three credits. Can be taken at any hour suitable to the student.

TEXTILES AND CLOTHING

ASSISTANT PROFESSOR MOEN

MISS RICHARDSON

MISS SKIDMORE

MISS BEERS

VOCATIONAL COURSES

a. REVIEW OF TECHNIQUE BY PRACTICAL PROBLEMS. The application of hand and machine sewing to household articles, to underwear and to simple dresses. Pattern making, economic and hygienc consideration of materials for household use and for clothing, with methods of care and repair. Winter quarter. Five credits.

Daily, 2 to 4:30

b. HOUSEHOLD TEXTILES AND SEWING. This course gives training in intelligent purchase and use of various fabrics for clothing and home decoration; textiles, their production and manufacture. Repairing and storage, with practical experience in the making of useful household articles and simple garments. Fall quarter. Three credits.

Lab. M. W. F. 2 to 4:30

c. DRESSMAKING ELEMENTARY. Continuation of "b." Drafting and use of commercial patterns; making of infants' and children's clothing; the use of worn materials, with the making of cotton, wool and silk dresses. Winter and Spring quarters. Six credits.

Lab. M. W. F. 2 to 4:30

d. TEXTILES AND CLOTHING. Training in selection of ready-made clothing, and household furnishing. Testing of textiles. Winter quarter. Three credits. Prerequisites or parallel, "b," "c."

Lec. M. W. F. 10:30

e. TEXTILE FABRICS. Methods of carding, spinning, weaving and finishing of cotton, wool, silk, linen and other important fibres. Properties and identification of textile materials; names, kinds, prices, widths, their relative value for clothing and household furnishings. Prerequisites or parallel, Applied Art 21, Clothing "d." Fall quarter. Three credits.

Lec. M. W. F. 11:20

f. CHEMISTRY OF TEXTILES. Chemical methods for the identification and estimation of the textile fibres, including complete quantitative determination of cotton, wool, silk, and linen substances in fabrics. Chemistry of dyeing and bleaching. Prerequisite, Chemistry 18. Spring quarter. Three credits.

M. W. F. 11:20

JUNIOR COLLEGE COURSES

1a. HAND SEWING AND GARMENT MAKING. The fundamental principles of hand and machine sewing; care and repair of clothing; drafting and the use of patterns, and the making of simple garments. Prerequisite or parallel, Art 1. Fall quarter. Three credits.

M. W. F. 2 to 4:30

1b. ELEMENTARY DRESSMAKING. A continuation of course 1a. Prerequisites or parallel, Clothing 1a, Applied Art 21. Winter quarter. Three credits.

M. W. F. 2 to 4:30

2a. TEXTILE FABRICS. This course considers the primitive forms and present methods of carding, spinning, weaving and finishing of cotton, wool, silk, linen, and other important fibres. Properties and identification of textile materials; names, kinds,

prices, widths, and relative value to clothing and household furnishings. Prerequisites or parallel, Applied Art 21, Clothing 1b. Fall quarter. Three credits.

M. W. F. 11:20

2b. TEXTILES AND CLOTHING. Training in selection of ready-made clothing and household furnishing. Qualitative testing of textiles. Winter quarter. Three credits.

M. W. F. 10:30

2c. CHEMISTRY OF TEXTILES. Chemical methods for the identification and estimation of the textile fibres, including complete quantitative determination of cotton, wool, silk, and linen substances in fabrics. Chemistry of dyeing and bleaching. Prerequisites, Chemistry 18, Textiles and Clothing 2a and 2b. Spring quarter. Three credits.

M. W. F. 11:20

3. MILLINERY. Designing and drafting patterns for hats; construction of frames from buckram, rice mat and wire; various methods of covering foundations. Preparation of trimmings; renovation of materials. Each student makes two hats. Prerequisites or parallel, Applied Art 1 and 21. Fall and Winter quarters, or Winter and Spring quarters. Four credits. (Elective.)

T. Th. 8:50 to 10:30; T. Th. 2 to 4:30

4. HANDWORK AND WEAVING. Application of fundamental embroidery stitches to household decoration and costume. Study of the selection, preparation, care and repair of bed linen, table linen, draperies, etc. Simple weaving, crocheting, knitting, and tatting. Prerequisites, 1a, 1b, and Art 27k. Thruout the year. Six credits.

T. Th. 2 to 4:30

SENIOR COLLEGE COURSES

5a. HISTORY OF COSTUME. A study of Egyptian, Grecian, Roman, early and modern French costumes. Fall quarter. Three credits. (Elective.)

M. W. F. 8:50

5b. **COSTUME DESIGN.** Design in costume, rhythm of line, harmony of color. Sketching gowns and hats; study of styles suitable to various types. Modeling in paper and crinoline. Winter quarter. Three credits.

Lec. W. F. 8:50; lab. M. 8:50 to 10:30

6. **ADVANCED DRESSMAKING.** Practical training in the application to costume of line and color harmony with the economic purchasing of materials. Adaptation to different individuals of designs from current fashion magazines, with emphasis on the technique of dressmaking. Prerequisites or parallel, Art 22a and 27a, Clothing 1, 2, 5a and b. Winter and Spring quarters. Six credits.

M. W. F. 8:50 to 11:20

7. **SURVEY OF TEACHING DOMESTIC ART.** Spring quarter. Five credits.

Daily, 8:50

VETERINARY SCIENCE

PROFESSOR FREDERICK

VOCATIONAL COURSES

a. **Elementary veterinary science for vocational students.** Four hours' classwork with one clinic. Winter quarter.

JUNIOR COLLEGE COURSES

1. **VETERINARY ELEMENTS.** Introduction to anatomy and physiology and the common ailments of domestic animals; the most prevalent diseases, their distribution, causes, symptoms, course, diagnosis and treatment; observation and practice in the free weekly clinics. Four hours' class with three hour clinic. Fall or Winter quarter. Five credits.

Lec. M. T. Th. F. 8:50; lab. W. 2 to 4:30

Professor Frederick

2. COMPARATIVE ANATOMY. For students in agriculture and animal husbandry especially; also students wishing to follow veterinary science. This course is supplemented with practical work in dissection, and illustrated by skeletons and models. Three lectures and laboratory thruout the year. Nine credits.

Professor Frederick

3. OBSTETRICS. Obstetrical anatomy, reproduction, hygiene of pregnant animals. Obstetric operations, accidents of parturition, and diseases of the new-born. The college herd and the surrounding stock breeding community give ample opportunity for practical work. Two hours. Winter and Spring quarters. Five credits.

Lec. T. Th. 11:20

Professor Frederick

4. PHYSIOLOGY. The vital functions of the different species of domestic animals and those of the human body are compared; the physical and chemical laws as related to physiology; the general properties of animal cells,—their origin, development and growth; special physiology of the various organs and tissues of the animal body. Three lectures a week, thruout the year. Nine credits.

Lec. M. W. F. 10:30

Professor Frederick

5. CLINICS. Free clinics at the hospital, in which students of veterinary science must assist. The numerous cases represent all diseases common to this locality and furnish the clinic with abundant material for observation and practice. Hours and credits to be arranged. Thruout the year.

Clinics. W. 2 to 4:30; Vet. Hospital

Professor Frederick

6. PRINCIPLELS OF HORSE SHOEING. The anatomy and physiology of the horse's foot; the form of the foot and direction of the limb; variations in the flight of the foot, style of going, shoeing of normal and irregular feet; winter shoeing; correction of

defects in gait and methods of shoeing hoofs defective in form or diseased. Three hours. Winter quarter; repeated Spring quarter. Three credits.

Lec. M. W. F. 8:00

Professor Frederick

SENIOR COLLEGE COURSES

7. HYGIENE AND INFECTIOUS DISEASES. A continuation of Veterinary Science 1. A discussion of water and food supply, disinfection, care and management of animals and feeding of sick animals.

The common infectious diseases prevalent here, methods which should be adopted in their control and eradication. Tests applied for diagnosis, vaccination and serum treatment of animals. Four hours and one laboratory. Winter quarter; repeated Spring quarter. Five credits.

Lec. M. T. Th. F. 9:40

Clinics. W. 2 to 4:30; Vet. Hospital

Professor Frederick

8. ANATOMY AND PHYSIOLOGY. A study of the form, structure, and functions of the animal body. Attention is given to all domestic animals and students are required to locate and point out the parts related to the form, movement, and utility of the animal. Two recitations and one laboratory. Fall and Winter quarters. Six credits.

ZOOLOGY

PROFESSOR HENDERSON

ASSISTANT PROFESSOR HAGAN

MR. SORENSON

JUNIOR COLLEGE COURSES

1. ELEMENTARY GENERAL ZOOLOGY. A study of morphology, physiology, differentiation, adaptation and other zoological

principles. A brief survey of the animal kingdom is undertaken so that the student will be able to identify the general groups. This course is intended for those who have not studied zoology before and who desire to get only a general view of the subject. Students in home economics, mechanic arts, agricultural engineering and commerce may take the course, but those in general science and agriculture and all students desiring to make a more comprehensive study should take Zoology 2. Fall and Winter quarters. Six credits

Lec. M. W. 8:50; lab. F. 2 to 4:30

Professor Henderson

2. HUMAN ANATOMY. A study of the form and structure of the various systems which make up the human body. The class work is supplemented by a firsthand study in the laboratory, of each system from skeletons, a manikin, models, and from dissections made upon some of the lower vertebrate animals. Two recitations and one laboratory period, three quarters. Nine credits.

Fall quarter. Introduction, the skeletal and muscular systems.

Winter quarter. The nervous system and sensory organs.

Spring quarter. The circulatory, respiratory, digestive, and reproductive systems.

Recitation, T. Th. 8:00; lab. F. 2 to 4:30

Mr. Sorenson

3. GENERAL ZOOLOGY. A systematic study of the animal kingdom, including its general classification and the relation of the various groups of animals to one another. Emphasis is placed upon the structural characteristics, development and relation of the organs in the different groups. Three recitations and two laboratories. Winter and Spring quarters. Ten credits. Invertebrate Zoology, Fall quarter. Vertebrate Zoology, Winter quarter.

Recitation, M. W. F. 11:20; lab. T. Th. 2 to 4:30

Mr. Sorenson

4. ECONOMIC ZOOLOGY. The food and breeding of the beneficial and injurious vertebrates of the intermountain region; including amphibians, reptiles, birds, rodents, and predatory animals; their relation to agricultural interests; methods of control. Four lectures and one laboratory period. Spring quarter. Five credits.

Lec. M. T. W. Th. 10:30; lab. W. 2 to 4:30

Mr. Sorenson

5. PARASITOLOGY. The classification, structure and life history of animal parasites; these include the pathogenic protozoans, flukes, tapeworms, roundworms and arthropods that act as carriers of organisms injurious to man and the domestic animals. Four lectures and one laboratory period. Fall quarter. Five credits.

Lec. M. T. W. Th. 10:30; lab. Th. 2 to 4:30

Mr. Sorenson

SENIOR COLLEGE COURSES

6. ADVANCED ZOOLOGY. The classification, morphology, and comparative anatomy of the vertebrates. Three recitations and two laboratory periods. Fall and Winter quarters. Five credits each quarter.

Lec. M. W. F. 8:00; lab. M. W. 2 to 4:30

Mr. Sorenson

7. GENETICS. This course considers the biological principles of life and the inheritance of characters. A study is made of the germ cells with reference to heredity. The questions of variations, mutation, the inheritance of acquired characters, pure lines, mendelism, sex-determination and genetic principles generally are the main subjects of discussion. Prerequisite, Zoology 2 or equivalent. Five lectures each week, Winter quarter. Five credits.

Daily, 11:20

Professor Henderson

8. **EUGENICS.** The principles of genetics as applied to the human race. Attention is given the historical development and needs for eugenics, the inheritance of physical, mental and moral traits; human crosses, consanguinous marriages, eugenic procedure and other principles which influence the innate qualities of human beings. Prerequisite, Zoology 6. Five lectures each week. Spring quarter. Five credits.

Daily, 11:20

Professor Henderson

9. **HISTOLOGY AND EMBRYOLOGY.** A general course treating the subjects of histology and embryology with special reference to man. The Fall quarter is given to lectures and laboratory work on the principles of technique and a study of epithelial tissue. The Winter quarter completes the work in histology and continues with a treatment of germ cells, their maturation and fertilization. The Spring quarter is given to a comparative study of the embryological development of *Amphioxus*, Frog and Man. Two lectures and two laboratory periods thruout the year. Four credits per quarter. Prerequisite, General Zoology.

Lec. T. Th. 10:30; lab. M. W. 2 to 4:30

Assistant Professor Hagan

10. **RESEARCH.** The student who wishes to engage in some line of original research and is qualified to do so may select and study some topic from eugenics, ecology, morphology or other zoological subjects. Thesis. Hours to be arranged.

Professor Henderson

Assistant Professor Hagan

Mr. Sorenson

See Entomology for related work.

Twenty-Fourth Annual Commencement

May, 1917

GRADUATES WITH DEGREE OF BACHELOR OF SCIENCE

AGRICULTURE

Agronomy

Curtis, Heber Allison.....	Payson
Dunford, Carlos Leroy	Logan
Ellsworth, John Orval	Rexburg, Idaho
Hansen, Reuben	Hyrum
Ivins, Heber Grant	Salt Lake City
Jackson, Dorrell Philo	Lewiston
Jarvis, Orin Woodbury	St. George
Maughan, Russell Lowell	Logan
Munoz R. Rafael	La Paz, Bolivia, S. America
Palmer, Asael Exile	Raymond, Alta., Canada
Powell, Morrell	Coalville
Wittwer, John Hyrum.....	Santa Clara

Animal Husbandry

Aldous, Clarence Moroni.....	Sterling, Idaho
Crocker, Walter James.....	Ogden
Holmstead, George	Lehi
Lowe, Morris David	Paris, Idaho
Price, Lew Mar	Provo
Sharp, Leo Bennion	Salt Lake City
Willie, Allen Leroy	Mendon

Botany

Becraft, Raymond John	Brigham
Lewis, Grover Elmo	Malad, Idaho
Nichols, Delore	Brigham
Perkins, Martin Lorenzo	Dayton, Idaho
Richards, Ezra Foss., Jr.	Farmington
Thornton, James William	New Castle
Wright, John William	Hinckley

Entomology

Otte, Joseph Einar	Logan
Stanford, Joseph Sedley	Carey, Idaho

Horticulture

Cragun, Dresden James	Smithfield
Malik, Ghulam Mohammed	India
Peterson, Anton O.	Logan
Smith, Raymond James	Logan

Master of Science

Turpin, Harold M.....	Dohne, South Africa
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AGRICULTURAL ENGINEERING AND MECHANIC ARTS*Agricultural Engineering*

Bond, William Joseph	Heber
Bowen, David Byron	Spanish Fork
Connell, Joseph Walter	Parowan
Jonsson, Carl William	Logan
McAlister, Irvine Lorenzo	Logan
Mayer, Clifford Andrew	Bingham Canyon
Parkes, William Schofield	Nephi
Parkinson, Glenn Smart	Logan

Mechanic Arts

Anderson, James Ira.....	Ogden
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COMMERCE

Bates, George Sprague	Monroe
Hardy, Leon	Logan
Harris, Melvin Charles.....	Logan
Howells, Byron	Oakley, Idaho
Judd, Robert L.	St. George
Nichols, Bervard	Brighton
Nisson, Clarence Wilford	Logan
Ralph, Leonard Thomas	Logan
Sjostrom, Joseph Emil	Logan
Skeen, David Alfred.....	Plain City
White, James Owen	Willard

GENERAL SCIENCE

Daines, Clyde Joseph	Hyde Park
Eccles, Jessie Stoddard	Logan
Everton, Edgar	Logan
Goldthorpe, Harold Clifford	Logan
Johnson, Carl Brigham	Richmond
Kapple, Charles Dixon	Payson
Linford, James Blood	Logan
Peterson, Harold	Bloomington, Idaho
Sharp, Ivor	Vernon
Stratford, Clyde	Pocatello, Idaho
Twitchell, Alvin Greenwood	Beaver

HOME ECONOMICS

Allen, Erma	Salt Lake City
Cook, Evelyn	Salt Lake City
Davidson, Georgene May	Logan
Davidson, Myrtle	Logan
Garn, Breta	Farmington
Jeppesen, Evelyn	Geneva
Jones, Eliza Annie	Newton
Merrill, Vera Stoddard	Richmond
Parker, Adelia	Paris, Idaho
Parsons, Ruby Ethelyn	Salt Lake City
Peterson, Violet Amelia	Smithfield
Richardson, Ivie	Logan
Robinson, Eunice	Salt Lake City
Rosengreen, Ruth	Logan
Sevy, Pearl	Richfield
Smith, Orita	Logan
Webster, Lola Merrill	Logan
Wight, Lillian	Brigham

Honors, 1917-18

Scholarship: The following students have been selected as deserving special distinction for high achievement in scholarship. They have, accordingly, received either a "Scholarship A" or "Honorable Mention" for scholarship:

Scholarship "A":

Gerald Thorne
Lucian Mecham, Jr.
Stella Young
Mabel Hendricks
Dewey Clyde
Geneva Wells

Honorable Mention:

Luella White
Eva Lindquist
Rachel Dunford
Edna Burrows
Elizabeth Underwood
Clio Olsen

Debating:

Intercollegiate Debate:

George Hansen
Russell Croft
S. L. Ballif
Heber Jones
Delbert Taylor
Arthur Fife
Elgin Morris
L. H. Hatch
L. W. Sorenson
Chase Kearl

Winners of Inter-class Debate:

Ephraim Josephsen
George Bateman

Oratory:

The Hendrics medal was won by:

J. Heber Jones

The Casto medal was won by:

Lydia Hansen

The medal offered by The Sons of the American Revolution was won by:

Thatcher Allred

Student Body Officers:

Heber Meeks, President
LaVon Bennion
Lora Bennion
Maurice Steifel
E. J. Kirkham
Delroy Gardner
Ortense Merrill
Florence Chipman
Ivy Lowry
Frank Salisbury
J. T. Wilson

"Student Life" Staff:

Delroy Gardner, Editor
Solon Barber, Associate Editor
George Ward, Business Manager

"Buzzer" Staff:

Carl Peterson, Editor
Russell Croft, Manager
George Ward
Lucian Mecham

L. H. Hatch
Adaliene Barber
Douglas Cannon
Lora Bennion
Solon Barber
Vanez Wilson
Fred Braithwaite
John Huppi

Cadet Officers:

The following students acted during the school year as
cadet captains:

Mohr, A. J.
Nelson, Lowry
Hughes, J. M.
Thorne, Gerald
Mecham, L. M., Jr.

As cadet lieutenants:

Jenson, Irving
Lindquist, Ariel
Haskins, C. E.
Stringham, J. G.
Browning, Kenneth
Stock, S. R.
Barber, G. P.
Barber, Solon

List of Students, 1917-18

(Not including Farmers' Conventions and Housekeepers' Conferences)

In the following list "a" stands for agriculture; "ae" for agricultural engineering; "ho" for home economics; "c" for commerce; "ma" for mechanic arts; "g" for general science; "m" for music; "ss" for summer school; "w" for winter course; "G" for graduates; "S" for seniors; "J" for juniors; "So" for sophomores; "F" for freshmen; "Sp" for special; "p" for practical course.

Adams, Erma D., c-So ss	Logan
Adams, J. Vernon, ae-Sp	Logan
Adams, Vaughn, ae-Sp	Logan
Adams, Venice, c-Sp.....	Logan
Aldous, Clarence M., ss.....	Sterling, Idaho
Allen, Albert B., a-F.....	Nephi
Allen, Irene, c-Sp.....	Logan
Allred, Harold, a-Sp	Boise, Idaho
Allred, Thatcher, a-So.....	Boise, Idaho
Allred, Warren, ss.....	Fountain Green
Alvord, Bessie D., c-Sp.....	Logan
Amussen, Eleonora, ho-Sp.....	Logan
Amussen, Odetta S., ho-Sp.....	Logan
Andelin, Bertram Y., ae-Sp.....	Richfield
Andersen, Hans P., ss	Hyrum
Andersen, James A., ae-F.....	Spanish Fork
Andersen, Laurine, ss.....	Salt Lake City
Andersen, Luella E., ho-So.....	Logan
Andersen, Stanley R., a-So.....	Ephraim
Andersen, Wm. M., a-Sp.....	Roy
Andreasen, Agnes, ho-Sp.....	Hyrum
Andrus, Laura, ho-F.....	Spanish Fork
Andrus, Lenard M., ae-F.....	Spanish Fork
Arbon, Eva, ss.....	Ogden
Armstrong, Carl, ae-Sp.....	Basalt, Idaho
Archibald, Owen, ma-Sp.....	Clarkston
Argyle, John, ae-Sp.....	Bancroft, Idaho
Argyle, Mark, g-F.....	Spanish Fork
Atkinson, Virgil, a-Sp	Clarkston
Arnold, Melvin S., a-So.....	Salt Lake City
Austin, E. Cean, c-So.....	Montpelier, Idaho
Austin, Gilbert, a-Sp.....	Salt Lake City
Austin, W. Wayne, ae-Sp.....	Montpelier, Idaho

Bachman, Halvy, c-F.....	Ogden
Backman, Albert E., a-S.....	Santaquin
Baker, Dan, ss.....	Monroe
Baker, Howard, a-F.....	Mendon
Baker, Merle R., ae-Sp.....	Oxford, Idaho
Ballantyne, Leonore, ss.....	Logan
Ballif, Adele, ho-Sp.....	Preston, Idaho
Ballif, Louis, c-So.....	Preston, Idaho
Ballif, Paul S., ae-F.....	Preston, Idaho
Ballinger, Zelta, ss.....	Ogden
Barber, Adaliene, g-J, ss.....	Logan
Barber, Adeline, c-Sp.....	Logan
Barber, Ellen, g-J.....	Logan
Barber, Geo Percy, a-So.....	Logan
Barber, Langton, ss.....	Logan
Barber, Solon R., g-J.....	Logan
Barber, Wynona, ss.....	Logan
Barker, Lena, ho-So.....	Ogden
Barker, Mignon, ho-F.....	Salt Lake City
Barlow, Fielding B., a-J.....	Ogden
Barney, Archie F., a-J.....	Kanosh
Barrett, Amanda L., c-Sp.....	Logan
Barrett, Florence, c-Sp.....	Logan
Barrett, Walter W., a-Sp.....	Logan
Barson, E. LaRue, ho-Sp.....	Clarkston
Barson, Peter E., ae-Sp.....	Clarkston
Barton, Randall J., a-Sp.....	Ogden
Bateman, Geo. M., g-F.....	Paris, Idaho
Bateman, Geo. Q., a-J.....	Sandy
Bateman, J. Robt., a-J.....	Sandy
Bateson, Louis A., c-Sp.....	Logan
Batt, Myrtle, ho-Sp.....	Logan
Baugh, Alfred L., c-F.....	Logan
Baugh, Geo. T., c-Sp.....	Logan
Baxter, Holly, lo-F.....	Salt Lake City
Baxter, J. Merrill, ae-Sp.....	Hyrum
Bayles, Emma J., ho-So.....	Blanding
Beck, Abel, a-Sp.....	Spanish Fork
Beckstead, Lloyd N., c-F.....	Preston, Idaho
Beckstrom, Marvin, a-So.....	Panguitch
Beesley, Hen v C., a-Sp.....	Driggs, Idaho
Bell, Evalyn, ho-Sp.....	Logan
Bell, Louisa, g-Sp.....	Logan
Bennion, LaVon, g-S, ss.....	Logan
Bennion, Lora, ho-J.....	Logan
Bennion, Sterling A., a-Sp.....	Taylorville
Benson, Karl A., a-Sp.....	Logan
Bentley, Isaura, ho-F.....	Col. Juarez, Chih., Mexico
Berg, Jos. A., ae-Sp.....	Basalt, Idaho
Bergeson, Abraham, ae-Sp.....	Logan
Bergeson, Ervin O., ae-Sp.....	Logan
Berntson, Hyrum A., ae-Sp.....	Logan

Berntson, Richune T., ae-Sp.....	Logan
Berntson, Russell E., c-F.....	Logan
Berntson, Zeleno, c-Sp.....	Logan
Beus, Zina, c-So.....	Ogden
Bingham, Harvey P., ae-Sp.....	Huntsville
Bingham, Kenneth, ma-Sp.....	Logan
Bingham, M. Bernita, ho-Sp.....	Blackfoot, Idaho
Bird, Kenneth J., ss.....	Manti
Bischoff, Della, ho-So.....	Lovell, Wyo.
Bischoff, Mabel, c-Sp.....	Lovell, Wyo.
Blackhurst, Mary, ss.....	American Fork
Blauer, Alice M., ho-Sp.....	Lund, Idaho
Blomquist, Vern, a-Sp.....	Richfield
Bluemel, Grace B., c-Sp.....	Logan
Blust, Mae E., c-Sp.....	Elberta
Boberg, Elroy, a-S.....	Draper
Boberg, Olive D., ho-Sp.....	Draper
Bone, Ray, a-Sp.....	Lehi
Bonelli, Edwin B., ae-Sp.....	Tooele
Bonner, Floyd, a-F.....	Midway
Bowen, Edith, ss.....	Logan
Bowen, Leslie, ae-So.....	Spanish Fork
Boyce, Dora, ss.....	Morgan
Bracken, Rulon H., a-F.....	Freedom, Wyo.
Bradley, Vincent F., ss.....	Manti
Braithwaite, Fred. C., g-S.....	Logan
Brimley, Wilford C., c-Sp.....	Logan
Brinton, M. H., ma-Sp.....	Victor- Idaho
Brington, Orissa, ho-S.....	Springville, Utah
Brim, Willis L., ae-Sp.....	Downey, Idaho
Broadhead, Donald H., ae-Sp.....	Nephi
Broadhead, Spencer N., ae-Sp.....	Nephi
Broberg, Ivy, c-Sp.....	Logan
Broderick, Clinton J., ae-Sp.....	Emery
Brown, Geneil, g-F.....	Manti
Brown, Lowell B., ma-Sp.....	Logan
Brown, Vernon B., c-Sp.....	Logan
Browning, Kenneth S., g-F.....	Ogden
Buck, Isabel E., ho-F.....	Park City
Buckley, Mrs. J. W., ho-Sp.....	Bancroft, Idaho
Budge, Alfred, ss.....	Boise, Idaho
Budge, Scott M., ss.....	Logan
Budge, Wallace H., ss.....	Logan
Bullen, H. Kieth, ss.....	Logan
Burgoyne, David A., c-J.....	Logan
Burgoyne, John, ae-Sp.....	Montpelier, Idaho
Burgoyne, Lucile, ss.....	Logan
Burgoyne, Phyllis, c-F.....	Montpelier, Idaho
Burnham, A. Edna, ho-J.....	Brigham
Burnham, Caroline, ss.....	Logan
Burton, Robert J., ae-Sp.....	Grace, Idaho
Caine, Kinnie C., ho-Sp.....	Logan

Campbell, Abel L., a-Sp.....	Providence
Campbell, Alonzo C., g-F.....	Logan
Campbell, Hyrum A., Jr., ae-Sp.....	Providence
Campbell, Joe I., ss.....	Providence
Campbell, Wahaneta G., ho-F.....	Providence
Campbell, Alma R., ae-Sp.....	Logan
Cannell, Veda A., ho-Sp.....	Smithfield
Cannon, Douglas Q., a-J.....	Salt Lake City
Cannon, Elizabeth, ho-S.....	Salt Lake City
Cannon, Rutli M., ho-F.....	Salt Lake City
Cardon, Grace, ho-S, ss.....	Logan
Cardon, H. Claire, g-So.....	Logan
Cardon, Laura C., ho-S.....	Logan
Cardon, T. Blondel, ho-Sp.....	Logan
Carlisle, Florence, ho-Sp, ss.....	Logan
Carlisle, Mary, ss.....	Logan
Carlile, Martha, g-J.....	Logan
Carson, Millie, ho-Sp.....	Richmond
Carter, Ezra G., a-G.....	Logan
Carter, Robt. Wm., Ma-F.....	Helper
Casto, Olive, ss.....	Logan
Chadwick, Pearl E., ho-Sp.....	Logan
Chapman, Ella M., c-Sp.....	Logan
Chard, Marcellus, a-F.....	Liberty
Cherry, Gladys, c-Sp.....	Logan
Child, Jennie, ho-Sp.....	Hooper
Chipman, Dorothy, ho-F.....	American Fork
Chipman, Florence S., ho-S.....	American Fork
Christiansen, ElRay L., c-So.....	Mayfield
Christiansen, Howard A., c-S.....	Richfield
Christiansen, Ole, aS, ss.....	Logan
Christiansen, Jos. R., a-F.....	Fountain Green
Christensen, Francis L., ae-Sp.....	Brigham
Christensen, F. Rodney, ae-Sp.....	Ephraim
Christensen, Heber W., a-Sp.....	Central, Idaho
Christensen, Laura B., ho-Sp.....	Hyrum
Clark, Ella, ss.....	Morgan
Clark, Horald G., c-J.....	Morgan
Clark, Melvin I., ae-F.....	Georgetown, Idaho
Clawson, Elmer C., c-J.....	Providence
Clayson, Amasa M., ae-Sp.....	Logan
Close, Jas. C., a-Sp.....	Sugar City, Colo.
Clyde, Geo. Dewey, ae-F.....	Springville
Cole, Grant M., ae-Sp.....	Logan
Collard, Robt. C., ae-Sp.....	Fountain Green
Collings, Earl, c-Sp.....	Monroe
Condit, Amanda, g-F, ss.....	Logan
Condit, O. Blanche, ae-G.....	Delta, Colo.
Conkwright, Allen H., c-F.....	Salt Lake City
Cook, David, a-Sp.....	Liberty
Cook, Geo. B., a-S.....	Willard
Cook, Merlin N., g-F.....	Willard

Cooper, Ethel, ss.....	Bozeman, Mont.
Cooper, Laura, ss.....	Logan
Corbett, Thelma, c-F.....	Smithfield
Corbidge, Elsie S., ho-Sp.....	Preston, Idaho
Cotter, Ralph U., c-S.....	Lehi
Cowley, Pearl, ss.....	Sandy
Crabb, Mildred, c-So.....	Elsinore
Crandall, Irwin R., ae-F.....	Springville
Cranney, Cleo, g-Sp.....	Logan
Crawford, Carylle, ina-Sp.....	Ferron
Crawford, Darrel, c-Sp.....	Logan
Critchlow, Frances, ss.....	Hyrum
Croft, A. Russell, a-J.....	Ogden
Croft, Geo. A., g-S.....	Ogden
Crookston, Edna H., ho-Sp, ss.....	North Logan
Crookston, Lourn E., a-Sp.....	North Logan
Croshaw, Frank F., ae-Sp.....	Oxford, Idaho
Croshaw, G. Vernal, ae-Sp.....	Oxford, Idaho
Croshaw, Tura, ho-Sp.....	Oxford, Idaho
Croshaw, Vera, ho-Sp.....	Oxford, Idaho
Crowther, Marilla, g-Sp.....	Logan
Cully, Taylor C., ae-Sp.....	Soda Springs, Idaho
Cutler, Bethea, ss.....	Hyrum
Dahl, Alma, ho-Sp.....	Hoooper
Dahle, Ada, c-Sp.....	Logan
Dahle, Wm., c-Sp.....	Logan
Daines, Carmen P., ss.....	Logan
Daines, Delmar L., ae-Sp.....	Hyde Park
Daines, Luella, ss.....	Logan
Dalley, Chas. Leland, a-F.....	Summit
Davidson, Georgene, ss.....	Logan
Davidson, Myrtle, ss.....	Logan
Davidson, Richard, ae-Sp.....	River Heights
Davis, Ernest, ina-Sp.....	Arbon, Idaho
Davis, Pearl, ss.....	Burley, Idaho
Day, LeRoy, a-Sp.....	Oakley, Idaho
Deal, Stephen, c-So.....	Springville
Doherty, Clara, ss.....	Ogden
Dunford, Rachel G., ss, ho-S.....	Salt Lake City
Dunkley, Annie, ho-Sp.....	Whitney, Idaho
Durfey, Elizabeth, ss.....	Collinston
Durfey, Irene, ss.....	Collinston
Durtschi, John J., a-So.....	Driggs, Idaho
Dustin, Monroe, c-Sp.....	Bates, Idaho
Drysdale, Elizabeth, c-Sp.....	Logan
Dyches, Edith C., ss.....	Castle Dale
Dyches, Thos. W., ss.....	Castle Dale
Sames, Esther, ss.....	Logan
Eberle, Lillie, ho-So.....	Ogden
Eccles, Geo. S., c-F.....	Logan
Eccles, Nora, c-Sp.....	Logan
Edwards, Jennings, ae-Sp.....	Logan

Edward's, Oliver W., a-Sp	Logan
Egbert, Anna, g-So.....	Lewiston
Egbert, Ivan, ss.....	Logan
Ellis, Bernice, c-Sp	Logan
Emmett, Simpson, c-Sp	Lovell, Wyo.
Engemann, Marguerite, ho-F.....	Eureka
England, Virginia H., g-Sp.....	Logan
Ericson, Beth, ho-J.....	Salt Lake City
Erickson, Ethel, ho-Sp.....	Mink Creek, Idaho
Erickson, Leonora B., ho-Sp.....	Logan
Erickson, Wm. Seth, ae-Sp.....	Logan
Eschler, Victor W., ae-Sp.....	Millville
Esplin, Evelyn, ho-F	Orderville
Evans, Annie, ss	Malad, Idaho
Evans, Hilton B., ss.....	Springville
Evans, Morrill, a-So.....	Lehi
Ewing, Scott P., g-So.....	Smithfield
Farns, Eva, ho-Sp.....	Preston, Idaho
Farnsworth, Esther, ho-Sp.....	Logan
Farnsworth, Birney, ss.....	Manti
Felix, Adolph, ae-Sp.....	Logan
Ferguson, Bruce D., ae-F.....	Spanish Fork
Ferguson, Ivan W., ae-Sp.....	Monroe
Feulner, Emil, c-Sp	Hunter
Fife, Arthur, ae-S.....	Cedar City
Field, Logan D., c-Sp.....	American Falls, Idaho
Finch, Nancy E., ho-F.....	Salt Lake City
Flanders, Hyrum E., g-F.....	Santaquin
Flint, Hector J., ae-Sp.....	Kaysville
Floyd, Evan B., ae-Sp	Driggs, Idaho
Fogelberg, Thelma, c-Sp.....	Logan
Follett, Orion A., ae-Sp.....	North Logan
Foote, Jas. R., ae-Sp.....	Morgan
Foreman, Dewey, ae-Sp.....	Monroe
Foutz, Leaone, ss.....	Pleasant Grove
Foutz, Nadine, ho-So.....	Richfield
Fox, Harold M., ae-Sp.....	Lehi
Frandsen, Austin, ae-Sp.....	Mount Pleasant
Frank, Lucy, ss.....	Ogden
Frodsham, Geo., c-Sp.....	Brigham
Fry, Chas. L., a-Sp.....	Morgan
Fryer, Lutie H., ss.....	Logan
Fuller, Dora E., ho-F.....	Eden
Gaily, Evelyn, ss.....	Kaysville
Gamble, Calvin, c-Sp	Bancroft, Idaho
Gardner, Elmer C., ae-Sp	Liberty
Gardner, Ernest G., ae-Sp	Fish Haven, Idaho
Gardner, V. Delroy, c-So.....	Murray
Garn, Breta, ss.....	Farmington
Garner, Rulon B., a-Sp	Ogden
Garrett, Christena, ss.....	Wellsville
Garrett, Leon, c-J.....	Nephi

Geddes, Lyle, g-F	Logan
Gilbert, Della, ss.....	Fairview, Idaho
Gilbert, Jennie, ss.....	Fairview, Idaho
Gillespie, Llewellyn, ae-Sp.....	Rexburg, Idaho
Gillespie, Vernon V., ae-Sp.....	Rexburg, Idaho
Gilligan, Geo. E., a-F.....	Salt Lake City
Gneiting, John, ae-Sp	Idaho Falls, Idaho
Goins, Hazel C., ho-F.....	Tooele
Goldthorpe, Harold C., g-G.....	Logan
Goodsell, C. Dean, ae-Sp.....	Logan
Goodwin, Jack C., cSp.....	Logan
Gowans, Chas., ma-Sp.....	Tooele
Graff, Milton T., ae-Sp.....	Santa Clara
Grace, Hosmer L., ç-F.....	Nephi
Gray, Delia, ss.....	Cleveland, Idaho
Greaves, John, aSp.....	Ephraim
Greene, Lola, ho-Sp.....	Smithfield
Green, Mary, ho-Sp.....	Wellsville
Greenhalgh, Alma, c-Sp	Logan
Griffin, Lucy, ho-Sp.....	Clarkston
Groesbeck, Louise, c-Sp.....	Shelley, Idaho
Grimaud, Virginia, c-Sp.....	Logan
Groebl, Helen, c-Sp.....	Logan
Grow, John L., ae-Sp.....	Huntsville
Grow, Parnell, ae-Sp.....	Huntsville
Gubler, Helen A., ho-J.....	Santa Clara
Gudmundson, Guy L., ae-Sp	Logan
Guyaz, Henry, ae-Sp.....	Logan
Haines, Everett P., ae-Sp.....	Evanston, Wyo.
Hale, John S., a-So.....	Salt Lake City
Hall, Cora, ho-Sp.....	Hyrum
Hallman, Isaac P., ae-Sp.....	Logan
Hammond, O. Cyril, c-Sp.....	Logan
Hamp, Verda, c-Sp.....	Logan
Hancock, Slade, g-F.....	Panguitch
Hancock, Victor, ae-Sp.....	West Weber
Hansen, Annie, ho-So.....	Collinston
Hansen, Chloe, ho-Sp.....	College Ward
Hansen, Clarence, a-Sp.....	Salt Lake City
Hansen, Elevia Enetta, g-Sp.....	Aetna, Canada
Hansen, Elva, c-Sp	Logan
Hansen, Ernest R., a-Sp.....	Salt Lake City
Hansen, Hazel, ss.....	Paradise
Hansen, Geo. H., g-S.....	Richfield
Hansen, Hans A., c-Sp.....	Ogden
Hansen, L. Dewey, c-F.....	Hyrum
Hansen, Lydia, g-F.....	Tremonton
Hansen, Mary J., ho-F.....	Salt Lake City
Hansen, Milton G., a-Sp.....	Providence
Hansen, Percy, ae-F.....	Salt Lake City
Hansen, Thelma J., ho-Sp.....	Trenton
Hansen, Wilford M., a-Sp.....	Aetna, Canada

Harmon, Geo. A., g-F.....	Arco, Idaho
Harmon, Lawrence B., a-S.....	American Fork
Harmon, Lila, ss.....	Manti
Harris, Estella S., ss.....	Logan
Harris, Ireta, ho-So.....	Logan
Harris, Marion, ss.....	Logan
Harris, Sterling, a-F.....	Logan
Harrison, Alton, g-Sp.....	Logan
Hart, Chas. J., a-F.....	Salt Lake City
Hartung, Wm. J., a-Sp.....	Mantua, California
Haskins, Clark E., a-Sp.....	Wendell, Idaho
Hatch, Asa F., ae-Sp.....	Hatch, Idaho
Hatch, Leah, ss.....	Franklin, Idaho
Hatch, Lorenzo H., c-So.....	Logan
Haueter, Nephi, a-Sp.....	Midway
Haws, Gladys, ho-Sp.....	Logan
Haws, Mabel, ho-Sp.....	Logan
Hayball, Edith, ho-Sp.....	Logan
Hayward, Clem J., g-F.....	Paris, Idaho
Heder, Lillian J., ho-Sp.....	Smithfield
Heldberg, Gustave O., a-S.....	Logan
Hendricks, John Allan, c-Sp.....	Logan
Hendricks, Mabel L., ho-So.....	Richmond
Hendricks, Olive, c-Sp.....	Richmond
Henrie, Irven L., ae-F.....	Manti
Henroid, Dean G., c-Sp.....	Eureka
Hersleff, Tagie A., ae-Sp.....	Delta
Heslop, Franklin, a-F.....	West Weber
Hess, Carter, ae-Sp.....	Fielding
Hewitt, D. Wesley, ma-Sp.....	Ogden
Heywood, David E., a-F.....	Thatcher, Arizona
Heywood, Ida, ho-So.....	Panguitch
Heywood, Robert T., a-Sp.....	Thatcher, Arizona
Hill, Ethel, ss.....	Franklin, Idaho
Hill, Gladys, ss.....	Wellsville
Hillam, LeRoy W., ss.....	Wellsville
Hillyard, Venice, cSp.....	Smithfield
Hinckley, Ellen R., ss.....	Logan
Hindley, Jean, ho-F.....	American Fork
Hirst, Chas. T., g-G.....	Logan
Hobusch, Wilhelmina, ho-S.....	Logan
Hogan, Elva, ho-Sp.....	Hatch, Idaho
Hogan, Ervin B., ae-Sp.....	Hatch, Idaho
Hogan, Nelson A., a-Sp.....	Hatch, Idaho
Holland, Lester, J., a-F.....	Shelley, Idaho
Holman, Ora, ss.....	Pleasant Grove
Holmes, Ellen, ho-J.....	Raymond, Alberta, Canada
Homer, R. K., ae-Sp.....	Smithfield
Hopkins, Edgar L., a-Sp.....	North Logan
Hopkins, Sybil, c-F, ss.....	North Logan
Howard, Harry Y., Jr., g-F.....	Menan, Idaho
Howard, Louise, g-So, ss.....	Huntington

Howell, J. Herald, ae-Sp	Logan
Howell, Ollie Jean, ho-Sp	Logan
Howell, Oliver C., c-F	Logan
Huber, Roy, a-Sp	Midway
Hudman, Orson, ae-Sp	Idaho Falls, Idaho
Hudman, Wm. Alvin, ae-Sp	Idaho Falls, Idaho
Huff, Harold J., ae-F	Spanish Fork
Hughes, J. Marion, ma-S	Farmington
Hulet, Elenor, ss	Morgan
Hulet, Hope, ss	Morgan
Hulse, Alice A., ho-Sp	Hyrum
Hunsaker, T. Earl, ae-Sp	Malad, Idaho
Huntsman, Arthur, ae-Sp	Ferron
Huppi, John, g-Sp	Logan
Hurst, P. Harrison, a-Sp	Payson
Israelson, Eva B., ho-Sp	Logan
Israelson, Victor E., a-Sp	Logan
Jackson, Reed W., c-Sp	Randolph
Jacobs, Helena P., ho-F	Rexburg, Idaho
Jacobson, A. Evan, ae-Sp	Oak City
Jacobsen, LaRue, c-Sp	Logan
James, Alvin, ae-Sp	Park Valley
James, Ferris, ae-Sp	Park Valley
Janes, Leah, c-Sp	Providence
Jarvis, John T., a-F	Hinckley
Jarvis, Lester A., a-F	Salt Lake City
Jenkins, Lorna, ss	Ogden
Jenkins, McKinley, c-F	Park City
Jenkins, Veneta, ho-Sp	Newton
Jennings, James R., a-S	Provo
Jensen, Byron, ae-Sp	Richfield
Jensen, Caroline E., c-Sp	Logan
Jensen, Cassie A., c-Sp	Rockland, Idaho
Jensen, Chas. M., ae-Sp	Smithfield
Jensen, Connie, ho-Sp	Weston, Idaho
Jensen, Ida O., ss	Idaho Falls, Idaho
Jensen, Irving J., a-S	Hyrum
Jensen, Lillian, ss	Mendon
Jensen, Milton B., g-F	Mendon
Jensen, Rulon N., ae-Sp	Basalt, Idaho
Jensen, Wallace, ae-Sp	Salt Lake City
Jensen, Wilford E., ae-F	Brigham
Jerman, I. Donald, ae-So	Santaquin
Jerman, Reid, ae-S	Santaquin
Johnson, Arnold, ae-Sp	Logan
Johnson, Austin L., ae-Sp	Bear River City
Johnson, Carl B., ss	Preston, Idaho
Johnson, Eric A., c-Sp	Logan
Johnson, Flora, ho-F	Huntington
Johnson, Naomi M., g-Sp	Logan
Johnson, Ruby J., c-Sp	Logan
Johnson, Theresa, ho-Sp	Ovid, Idaho

Johnstun, Geo., ae-F	Vernal
Jones, Dewey T., c-Sp	Malad, Idaho
Jones, Effie, ho-S	Cedar City
Jones, Gwenfred, ss	Malad, Idaho
Jones, Howard T., ma-Sp	Sunnyside
Jones, Lewis, g-Sp	Deweyville
Jones, Wm. Heber, c-F	Santaquin
Jones, Nellie T., ss	Malad, Idaho
Jonsson, Hilma, ss	Logan
Jordan, Fannie C., ss	Logan
Jordan, Lenora, ho-F	Logan
Jordan, Leonard B., ae-F	Enterprise, Oregon
Jordan, Marion E., a-F	Enterprise, Oregon
Jorgensen, Milton, ae-Sp	Logan
Jorgensen, Osmond, c-Sp	Logan
Jorgensen, Raymond H., ae-Sp	Hyrum
Josephson, Ephraim L., c-F	Brigham
Kearl, Chase, a-So	Laketown
Kenner, Robt. Lee, a-F	Manti
Kennington, Ira L., a-Sp	Logan
Keller, Bessie, ss	Logan
Kerr, Vie B., ho-S, ss	Wellsville
Khan, Abbas Kuli, ae-Sp	Teheran, Persia
Khan, Allah Kuli, ae-Sp	Teheran, Persia
Khan, Ameen, a-So	Teheran, Persia
Khan, Syied Jafar, a-So	Teheran, Persia
Killpack, J. Movell, a-Sp	Huntington
Killpack, McLloyd, a-Sp	Ferron
Killpack, Maralda, g-Sp	Ferron
Kimball, Chase Ray, g-F	Driggs, Idaho
King, Ona J., ho-F	Kamas
King, Geo. Edw., g-S	Garland
Kirkham, Ebenezer J., a-S	Lehi
Kirkham, J. Arno, a-S	Lehi
Kirby, Frank J., ae-S	Sugar, Idaho
Kloepfer, Rachel, ss	Logan
Knudsen, Irma, ho-So	Brigham
Knudsen, Marjorie, g-So	Brigham
Knudsen, N. Wm., ss	Provo
King, LeVere, a-Sp	North Logan
Koepp, Myrtle, g-So	Ogden
Lambertsen, Otto, ae-Sp	Elsinore
Langton, Lucie G., g-F	Shelley, Idaho
Langton, W. Gibbs, g-Sp	Logan
Larkin, Jos. E., ae-Sp	Snowville
Larson, Annie, ss	Garland
Larsen, Ernest O., ae-S	Santaquin
Larsen, Estella, ho-S, ss	Logan
Larsen, E. N., ss	Manti
Larsen, Floyd, a-Sp	Logan
Larsen, Herbert W., c-F	Logan
Larsen, LeOra, ss	Brigham

Larsen, Naomi, ho-J, ss	Logan
Larsen, Nellie, c-Sp	Hyrum
Larsen, Olga, ss	Smithfield
Larsen, Roldo, ae-Sp	Axtell
Larsen, Victor R., g-F	Logan
Law, Joseph, ss	Logan
Leavitt, Paul P., ae-Sp	Joseph
Lee, Bertil H., a-J	Hoytsville
Last, Chas. H., ae-F	Lewiston
Lee, Chas. Burton, c-F	Price
Leigh, Caroline C, ho-S, ss	Cedar City
Leishman, Esther H., c-Sp	Wellsville
Leishman, Leona, ho-Sp	Wellsville
Leonard, Dora, c-Sp	Huntington
Leonard, Erin H., g-F	Huntington
Leonard, Lola, ho-Sp	Huntington
Lewis, Annabel, c-F	Hiawatha
Lewis, Gilbert B., ae-F	Marion
Lewis, Inez E., c-Sp	Hiawatha
Lightfoot, Thos., a-Sp	Ogden
Lindquist, Ariel, g-S	Logan
Lindquist, Eva A., ho-J	Salt Lake City
Lindsay, Wm., c-Sp, ss	LaGrande, Oregon
Linford, Maurice B., a-Sp	Logan
Linford, Wm. B., ae-Sp	Logan
Lofgreen, Rae, ho-Sp	Huntsville
Loveless, Ray E., a-F	Provo
Lowe, Joseph, ae-F	Salt Lake City
Lowe, Nolan D., ae-Sp	Franklin, Idaho
Low, Morris D., ss	Paris, Idaho
Low, Veda, ss	Paris, Idaho
Lowry, Ivy C., ho-J	Ferron
Lund, Yeppa, g-G	Weston, Idaho
McAlister, Harriet, ss	Logan
McAlister, Ward R., ss	Logan
McAllister, Brigham W., a-Sp	Manti
McAllister, Belle T., ho-Sp	Manti
McBride, Cora G., ss	American Fork
McBride, Jas. W., ae-Sp	Hyrum
McCulloch, Maud, ss	Logan
McDonald, Howard, ae-F	Murray
McFarland, Blaine, c-F	Ogden
McGinnis, Frank R., c-Sp	Midway, Wyoming
McGinnis, Joe, c-Sp	Midway, Wyoming
McKell, Leonard, ae-F	Spanish Fork
McKenzie, J. Isabelle, ho-F	Park City
McMullin, Rela, ho-F	South Jordan
McMurdie, Louise, c-Sp	Logan
Madsen, Frances, ho-F	Manti
Madsen, John M., ae-Sp	Riverton
Madsen, Urban S., ae-Sp	Fountain Green
Magleby, John B., a-Sp	Monroe

Magleby, Karl J., a-F	Monroe
Magleby, Rulon T., a-So	Monroe
Malcolm, J. Leo, ae-F	Santaquin
Martin, Will K., ae-Sp	Rigby, Idaho
Mason, Lavon, ho-J	Willard
Martineau, Claire, ss	Logan
Mathis, Mary F., ss	Price
Mathisen, W. Minton, g-J	Montpelier, Idaho
Maughan, Eldora J., ss	Logan
Mauss, Michael, a-Sp	Murray
Mayer, Clifford, a-Sp	Fountain Green
Mecham, Lucian M., a-J	Col. Juarez, Chih., Mexico
Meeks, Heber, c-S, ss	Kanab
Meikle, Wm. L., c-Sp	Tetonia, Idaho
Merkley, J. Golden, a-Sp	White Rocks
Merrill, Chas. Leo, ss	Richmond
Merrill, Don C., ss	Richmond
Merrill, Edna E., ho-So, ss	Logan
Merrill, Effie E., ho-Sp, ss	Logan
Merrill, Milton R., a-F	North Logan
Merrill, Oretta ss	Logan
Merrill, Orentcia H., ho-J	Richmond
Mickelsen, Anton, c-So	Logan
Midgley, Donald, ae-Sp	Hyrum
Miles, Maurice, ae-Sp	Smithfield
Miller, Earl J., a-Sp	Logan
Miller, H. Julian, ae-So	Farmington
Milner, Ann E., ho-F	Raymond, Alta, Canada
Miner, David H., g-F	Salt Lake City
Mitchell, Leland R., ae-S	American Fork
Mohr, Andrew J., a-Sp	Logan
Moncur, LaPriel C., ho-J	Logan
Montgomery, B. A., a-Sp	Liberty
Morehead, Lois, ss	Preston, Idaho
Morgan, Lillian, ho-F	Goshen
Morgan, Samuel, a-s, ss	Logan
Morrill, Davis, a-Sp	LaPoint
Morrill, Ivan L., ae-Sp	LaPoint
Morris, Carl, ae-Sp	Ogden
Morris, Claud N., ma-Sp	Rosette
Morris, Elgin H., a-F	Sandy
Morrison, Bessie, ho-J, ss	Brigham
Mortensen, M. Emeline, ho-Sp	Cleveland
Mortensen, Vernal J., ae-Sp	Ephraim
Mortensen, Victor, a-Sp	Cleveland
Moyes, Elmer A., ae-Sp	Churchill, Idaho
Muir, Barlow F., ae-Sp	Logan
Muir, Hazen L., ae-Sp	Gray, Idaho
Murdock, Sarah C., ho-Sp	Lovell, Wyoming
Nagle, Harold E., c-F	Filer, Idaho
Nebeker, A. Hulme, g-J	Logan
Neddo, Ella, ss	Providence

Neddo, Geo. W., ae-Sp	Providence
Nef, Emil, ma-Sp	Rexburg, Idaho
Nelson, A. Caroline, ho-F	Moroni
Nelson, Clara, ho-F	Ferron
Nelson, Cloe, ho-F	Huntsville
Nelson, Etta, ss	Logan
Nelson, Razel, ss	Logan
Nelsen, Lowry, c-G, ss	Ferron
Nelson, Peter, g-S, ss	Mink Creek, Idaho
Nelson, Verian A., c-Sp	Logan
Nibley, Chas. W., Jr., a-Sp	Logan
Nibley, Florence, g-Sp	Logan
Nichols, Bervard, c-G	Brigham
Nichols, DeLore, ss	Brigham
Nielsen, Beatrice M., ho-So, ss	Logan
Nielsen, Elmer J., ae-Sp	Axtell
Nielsen, Ether, ae-Sp	Hyrum
Nielsen, Eva Joy, ho-S, ss	Ephraim
Nielsen, Francis, ae-Sp	Preston, Idaho
Nielsen, Glenn Z., ma-J	Axtell
Nielsen, LaVon A., ae-Sp	Logan
Nielsen, Myrtle, g-Sp	Logan
Nielsen, Neils P., g-S, ss	Millville
Nielsen, Paul E., ma-Sp	Fountain Green
Nielsen, Reuben H., ae-Sp	Joseph
Nielsen, Vera E., ho-Sp	Logan
Nixon, Grace D., c-Sp	Huntington
Nixon, Clarence G., a-Sp	Price
Nixon, St. Clair, a-Sp	Huntington
Noack, Dora E., ho-Sp	Blackfoot, Idaho
Norman, Delbert, ae-Sp	Lehi
Nordberg, Ebba, ss	Sandy
Norr, Razel M., ho-Sp	Logan
Nuffer, Louis F., a-S	Logan
Oakey, Sarah, ho-Sp	Bloomington, Idaho
Oberhansly, E. Pearl, g-F	Payson
Oldham, Mabel, ss	Paradise
Olsen, Andrew S., ae-Sp	Ovid, Idaho
Olsen, Chester J., ae-F	Emery
Olsen, Cleoe, ho-F	Manti
Olsen, Einar B., c-F	Logan
Olsen, D. Lamar, ae-Sp	Emery
Olsen, Elva, c-Sp	Logan
Olsen, Kenneth L., ma-Sp	Scipio
Olsen, Leah E., c-Sp	Clifton, Idaho
Olsen, Leander, a-Sp	Moreni
Olsen, Norma, ss	Hyrum
Olsen, Sarah, c-Sp	Logan
Olsen, Sylvan, c-F	Logan
Olsen, Virginia, ho-Sp	Lewiston
Olsen, Zelda R., ho-So	Moroni
Orison, Claude, ae-Sp	Thatcher, Idaho

Osmond, Fenr, c-Sp	Logan
Osmond, Ruby, ss	Logan
Osmond, Wendell, c--Sp	Provo
Oviatt, Ira, ae-Sp	Elmo
Owen, Chas. H., c-F	Idaho Falls, Idaho
Owen, Leslie, ae-Sp	Logan
Owen, Vern, a-F	Peterson
Packer, Vera E., c-Sp	Preston, Idaho
Page, Willis, c-So	Preston, Idaho
Palmer, Elijah, ae-Sp	Park Valley
Palmer, Della, ss	Malad, Idaho
Palmer, Rudger, ae-Sp	Park Valley
Parker, Byron N., ae-Sp	Joseph
Parker, Mary, ho-F	Hooper
Parker, Nora, ho-Sp	Hooper
Parker, Warren W., a-Sp	Hooper
Parkinson, Karma, ho-J, ss	Logan
Parkinson, Marie, ss	Logan
Parkinson, Wallace B., g-Sp	Logan
Parrish, Chas. Russell, ss	Farmington
Parry, Oscar L., c-Sp	Ogden
Pattee, Frank G., ae-Sp	Rexburg, Idaho
Pauli, Jos., ae-Sp	Ogden
Pearson, Herschell E., a-Sp	Draper
Pearson, Oswald, ma-Sp	Oakley
Pearson, Vera, ho-F	Oakley
Pedersen, Peter A. C., ss	Bear River City
Pehrson, Franklin G., ae-Sp	Monticello
Pehrson, Raymond E., ae-Sp	Vernon
Pehrson, Nettie, c-Sp	Logan
Perkins, W. Wendell, g-F	Gunnison
Peters, Laura E., ss	Nephi
Peterson, Anthon O., ss	Logan
Peterson, Beena Dee, ho-Sp	Logan
Peterson, Carl W., a-J	Salt Lake City
Peterson, Elsie, g-F	Portland, Oregon
Petersen, Grace, ho-F	Manti
Petersen, Irene, ho-Sp	Ovid, Idaho
Petersen, Ivy, ho-Sp, ss	St. Charles, Idaho
Petersen, Jesse, ss	Hyrum
Petersen, Laurene, ss	Hyrum
Petersen, LaVoyle, ho-J	Logan
Petersen, Madga, ho-Sp	Logan
Petersen, Maybelle, ho-Sp	Logan
Petersen, Myrtle, c-Sp	Castle Dale
Petersen, Ray D., g-F	Park City
Petersen, Wm. O., g-J, ss	Logan
Phillips, Ida, g-F	Lehi
Phillips, Jane, ss	Lehi
Phillips, John D., ae-F	Idaho Falls, Idaho
Pixton, Robert C., a-S	Murray
Pixton, Robert L., a-F	Sandy

Pond, Lillian H., ho-So	Salt Lake City
Pond, Chas., a-Sp	Lewiston
Potter, Elwin A., g-Sp	Bancroft, Idaho
Poulsen, James, ae-Sp	Logan
Poulsen, Oleta, ho-J	Brigham
Poulter, W. Irvin, a-J	Ogden
Pratt, Amy, ss	Logan
Pratt, Nina, c-Sp	Hinckley
Price, Ardath L., a-F	Provo
Price, Rudger, ae-Sp	Oakley, Idaho
Porter, Elizabeth, ss	Rexburg, Idaho
Probst, Jos. E., a-Sp	Midway
Probst, Nephi, a-Sp	Midway
Probst, Vernon E., a-Sp	Midway
Pyper, Allan G., a-Sp	Salt Lake City
Quayle, James W., ss	Logan
Quayle, Jos. L., c-Sp	Logan
Quinney, Dick, ae-Sp	Logan
Rallison, Gretta, c-F	Preston, Idaho
Rallison, Robt. Leo, c-F	Preston, Idaho
Ralph, Verda M., c-Sp	Logan
Ramsperger, Albert G., g-Sp	Logan
Ramsperger, Helena, g-F, ss	Logan
Ramsperger, Herman C., a-J	Logan
Redd, Amie, ho-F	Bluff
Redford, Rulon L., ae-Sp	Logan
Redington, Ray W., ae-Sp	Oxford, Idaho
Reed, Jos., a-F	Salt Lake City
Reeder, Howard C., ae-F	Brigham
Reese, Laura, ss	Malad, Idaho
Rees, Ruth, ss	Garfield
Rencher, John U., ss	Swan Lake, Idaho
Riblett, Maude C., ss	Salt Lake City
Rich, Clarence M., ae-Sp	Paris, Idaho
Rich, Geneva, ho-F	Logan
Rich, Irene, ho-J	Logan
Rich, John P., a-Sp	Morgan
Rich, Oneal, a-F	Paris, Idaho
Richards, Wm., ss	Malad, Idaho
Richardson, Belle, c-Sp	Ferron
Richardson, Fontella, g-Sp	Ferron
Richardson, Horace, g-Sp	Logan
Richardson, Lester A., a-G	Logan
Richardson, Pearl, c-Sp	Ferron
Ricks, Irene, ho-F	Logan
Ricks, Julia, ss	Logan
Ricks, Paul, c-Sp	Logan
Ricks, W. Reed, c-Sp	Benson
Rhodes, Vernon M., a-Sp	Garland
Rindlisbacher, Nellie, ho-Sp	Logan
Riter, Wm. E., a-Sp	Logan
Roberts, Lyne, a-Sp	Provo

Roberts, Prudence, ho-F	Ogden
Roberts, Samuel E., c-So	Logan
Robins, Jessie, ss	Layton
Robson, Ralph, a-Sp	Ogden
Rogers, Henry, ae-Sp	Logan
Rogers, Lucile P., g-J, ss	Logan
Rohwer, Aaron, ae-Sp	Tremonton
Rose, Guy B., g-Sp	Logan
Rose, Garr Wm., ae-Sp	Logan
Rose, Raymond D., c-Sp	North Logan
Rosengreen, Enid J., g-J, ss	Logan
Rosengreen, Ruby L, c-Sp	Logan
Rosengreen, Ruth, ss	Logan
Romney, G. Maurice, a-Sp	Rexburg, Idaho
Rowberry, Agnes, ss	Grantsville
Rowe, Louis H., c-J	Salt Lake City
Rowley, Margaret R., c-Sp	Logan
Roylance, Jesse, c-S	Springville
Russell, Eddie, a-Sp	Roy
Russell, Geo. Elmo, ae-So	Springville
Ruud, Edna, c-Sp, ss	Logan
Salisbury, Frank M., ma-F	Springville
Sanford, Ralph B., c-F	Delta
Sauls, Kiefer B., a-So	Logan
Savage, Parley, c-S	Logan
Savage, Willis, a-So	Hyrum
Saxer, Beatrice, ho-Sp	Logan
Scholes, Phoebe, ho-Sp	Logan
Seager, LaRue, ss	Tremonton
Sealy, Leon M., c-Sp	Logan
Scott, Burt C., ae-Sp	Gainesville, Florida
Sevy, Pauline, ho-Sp	Panguitch
Sevy, Pearl, ss	Richfield
Shaw, Bessie H., ss	Logan
Shaw, James, ma-Sp	Ogden
Shaw, Mary, ss	Logan
Shirazi, Mirza Ali A., a-J	Persia
Shuldberg, Leroy H., ae-Sp	Preston, Idaho
Shumway, Hattie, ho-Sp	Treasureton, Idaho
Silvers, Ray J., a-F	Salt Lake City
Skanchy, Fritz N., g-S	Logan
Skanchy, Verna, ho-So, ss	Logan
Skidmore, Albert L., ae-Sp	Benmore
Sloan, Richard T., g-Sp	Montpelier, Idaho
Smith, Albert E., a-S	Logan
Smith, Bertram W., g-S	Logan
Smith, Beulah E., c-Sp	Providence
Smith, Driver E., c-Sp	Jensen
Smith, Emma, c-Sp	Logan
Smith, F. Arvin, a-Sp	Fielding
Smith, Gladys W., c-Sp	Logan
Smith, Golden G., a-Sp	Logan

Smith, Inez, ho-Sp	Logan
Smith, Iva, ho-Sp	Fielding
Smith, L. Calder, a-S	Smithfield
Smith, Margaret Iva, ho-J	Logan
Smith, Marian L., ss	Logan
Smith, Mary, c-Sp	Logan
Smith, Olena W., ho-J, ss	Logan
Smith, Orita, ss	Logan
Smith, Ralph D., ae-Sp	Salt Lake City
Smith, Rulon, c-Sp	Logan
Smith, Sidney S., ae-Sp	Wanship
Smith, Vella B., ho-Sp	Jensen
Smith, Wm. Elbert, a-Sp	White Rocks
Smith, W. McCracken, c-Sp	Smithfield
Smith, Winnifred G., ho-Sp	Beaver
Smoot, Ernest W., c-Sp	Washington, D. C.
Smurthwaite, Margaret E., ss	Wellsville
Solomon, Leah, ho-J	Salt Lake City
Sorensen, Emma B., ho-S, ss	Mendon
Sorensen, Frank A., ae-Sp	Georgetown, Idaho
Sorensen, Howard, ae-Sp	Ogden
Sorensen, Lionel W., g-S	Gunnison
Southwick, Arel, a-F	Lehi
Southwick, Ethel, ho-F	Lehi
Spande, Mabel, ss	Logan
Spande, Sybil E., ss	Logan
Sparks, Lawrence C., ae-Sp	Smithfield
Speierman, C. Wallace, c-Sp	Logan
Spencer, Chester V., a-Sp	Logan
Spencer, E. Fred, c-Sp	Logan
Spencer, Lawrence P., a-Sp	Salt Lake City
Spencer, Sidney K., c-Sp	Salt Lake City
Stander, David E., ae-F	Bear River City
Standing, Russell J., ae-So	Honeyville
Stanrod, Vera, c-Sp	Logan
Stephens, Naomi, c-Sp	Logan
Stiefel, Maurice, ae-F	Salt Lake City
Stock, Sidney R., g-J	Fish Haven, Idaho
Stock, Wesley K., a-Sp	Fish Haven, Idaho
Stock, Ray C., ae-Sp	Fish Haven, Idaho
Stockdale, Merle, ae-Sp	Franklin, Idaho
Stookey, Bernice J., ho-So	Clover
Stookey, Lincoln A., a-F	Clover
Stringham, J. Grant, a-Sp	Salt Lake City
Stowell, Caseel, ss	Logan
Straw, Winifred, ss	Springville
Stuart, Barbara, ss	Wellsville
Stuart, Fay M., ho-F	Sandy
Sumsion, Glen W., ae-F	Springville
Sutton, Emma C., ho-F	Park City
Swartz, Joseph, c-Sp	Logan
Swenson, Esther, ss	Sandy

Tanner, Norma, ho-S	Salt Lake City
Tanner, Ray S., ae-So	Fairview
Tanner, Wm. J., a-So	Whitney, Idaho
Tarbet, Bourke, ae-Sp	King
Taylor, Albert B., a-So	Lehi
Taylor, Delbert G., a-F	Rigby, Idaho
Taylor, Irvin, ae-Sp	Clifton, Idaho
Taylor, Jennie, ho-So, ss	Lehi
Taylor, Mada, c-F	Spanish Fork
Taylor, Viva, ss	Lehi
Terry, Henry, ss	Fairview
Thain, Aldyth, g-J	Logan
Thain, J. Henry, ae-Sp	Logan
Thain, Roy C., ae-Sp	Logan
Thatcher, Franklin D., ss	Logan
Thatcher, Helen, ho-J, ss	Logan
Thatcher, Patience, g-Sp	Logan
Thayne, Wm. Jas., a-Sr	Yost
Thelander, John C., a-Sp	Ogden
Thomas, Kate, g-So, ss	Malad, Idaho
Thomas, LaRue, ho-J	Logan
Thomas, Luella M., ho-F	Plain City
Thomas, Owen B., ae-Sp	Logan
Thomas, V. Geneva, c-F	Logan
Thomason, Anna, c-Sp	Logan
Thompson, Ida, ho-Sp	Clarkston
Thomson, Catherine, ss	Ephraim
Thorn, Eliza, ho-S	Springville
Thorne, G. Gerald, a-S	Logan
Thornton, Jas. W., ss	Newcastle
Thorpe, Yale C., a-So	Ephraim
Thurgood, Bertha M., ho-F	Hooper
Timothy, Blaine, a-F	Greeley, Colorado
Tippetts, John R., a-Sp	Salem
Tobias, Esther, c-Sp	Logan
Toombs, Wm., ma-Sp	Logan
Tracey, E. Erma, c-Sp	Ogden
Tracey, Thos. J., ma-Sp	Ogden
Tucker, Geo. W., ae-Sp	Fairview
Turner, Marjorie, g-F	Ogden
Tuttle, Hazel, ss	Manti
Tuttle, Laura J., ss	Manti
Tuttle, Lucille, ss	Manti
Tuttle, Maud, ss	Manti
Twitchell, Alvin G., g-G	Beaver
Twitchell, E. Evelyn, ho-Sp	Beaver
Underwood, Elizabeth, ho-S	Logan
Vance, Aliene M., c-Sp	Kemmerer, Wyoming
Vernon, Aldyth, g-Sp, ss	Logan
Vernon, Lais, g-Sp, ss	Logan
Vernon, Weston, Jr., ss	Logan
Waddell, Geo. Q., a-F	Driggs, Idaho

Wagstaff, Annie E., ho-Sp	Preston, Idaho
Walc, Leopold, ae-Sp	Ogden
Wallace, Edith, ho-S	Salt Lake City
Walton, F. Wallace, ae-Sp	Centerville
Wangsgard, Clarence, ae-Sp	Huntsville
Wangsgard, Irvin, ae-Sp	Huntsville
Wanner, Mary L., ho-Sp	Preston, Idaho
Ward, Geo. A., c-J	Willard
Warner, Adella, ss	Ogden
Warnick, Reed W., a-F	Pleasant Grove
Washburn, Irvin G., c-Sp	Monroe
Watson, Wilbur, a-Sp	DeKalb, Illinois
Watts, Wilford, a-Sp	Kanosh
Wayman, Wallace, a-So	Logan
Wayman, Irene, ss	Rexburg, Idaho
Webb, Jos. E., c-J	Logan
Wells, Geneva, ho-So	Salt Lake City
West, Lawrence M., c-Sp	Ogden
White, Azmon D., ae-S	Beaver
White, Edna A., ho-J	Beaver
White, Lucy E., ho-F	Willard
White, Luela, ho-J	Beaver
Whitmore, Jas. M., a-So	Midvale
Whitney, Florest, ho-Sp	Weston, Idaho
Whitney, Myrtle, ho-Sp	Weston, Idaho
Wickham, Freda, ho-Sp	Franklin, Idaho
Wickham, Walter M., ae-Sp	Franklin, Idaho
Wight, Lillian, ss	Brigham
Wight, Zillah, ss	Brigham
Wilcox, Fred O., a-F	St. Anthony
Wilcox, Marsh D., ae-Sp	Logan
Wilkinson, Geo. M., c-Sp	Logan
Williams, Edith, ss	Logan
Williams, Helen, ho-Sp	Hyrum
Williams, Howell M., a-J	Logan
Williams, Vernetie, ss	Kamas
Willis, Albertine, ho-Sp	Imcon, Idaho
Wilson, Clifford S., ae-Sp	Driggs, Idaho
Wilson, Jesse T., c-J	Hyrum
Wilson, Marion L., ae-Sp	Salt Lake City
Wilson, T. Frederick, ae-Sp	Oxford, Idaho
Wilson, Vanez T., ae-J	River Heights
Winberg, Conrad, ae-Sp	Millville
Winchester, Wm., ae-Sp	Black Pine, Idaho
Winger, Alice, ho-Sp	Treasureton, Idaho
Winters, Glen C., a-Sp	Mt. Pleasant
Winward, Mary E., ho-F	Sandy
Wolter, Albertus, ae-Sp	Yost
Wood, Grace, ho-Sp, ss	River Heights
Wood, Amos, ss	Spanish Fork
Woodhouse, Jesse M., ae-S	Idaho Falls, Idaho
Woodland, Orville W., ae-Sp	Willard

Woodland, Thos. C., ae-Sp	Willard
Woodside, Jean R., ss	Logan
Woodward, Grant, a-Sp	Franklin, Idaho
Woolley, Arvilla, ho-Sp	Pocatello, Idaho
Woolley, Olive, ho-S	Ogden
Woolston, Della M., ho-F	Lehi
Worley, Clyde, a-F	Logan
Worley, Margaret, g-Sp	Logan
Worthington, Warren E., ae-Sp	Oakley, Idaho
Wright, Chas. C., ae-Sp	Bennington, Idaho
Wright, H. Pratt, c-So	Hinckley
Wright, John W., ss	Hinckley
Wright, P. Lee, ae-Sp	Brigham
Wyatt, Caroline A., ho-S, ss	Wellsville
Young, Brigham R., ae-Sp	Driggs, Idaho
Young, Claud L., ae-Sp	Monticello
Young, Jesse L., ss	Fairview
Young, Stella, ho-So	Brigham
Youngberg, Oscar H., a-Sp	Lehi
Zabriskie, A. Vard, c-F	Eureka
Zundel, Dwight, ae-Sp	Malad, Idaho

SUMMARY OF ATTENDANCE, 1917-18.

	Agriculture (Men)	Ag'l Engineering (Men)	Commerce (Men)	Commerce (Women)	General Science (Men)	General Science (Women)	Home Economics (Women)	Mechanic Arts (Men)	Mechanic Arts (Women)	TOTAL	GRAND TOTAL
COLLEGE:											
Graduates	2	...	2	...	4	...	...	...	...	8	
Seniors	18	8	3	...	10	1	20	1	...	61	
Juniors	12	1	9	...	4	5	25	1	...	57	
Sophomores	20	6	11	2	1	7	22	...	...	69	
Freshmen	37	24	25	10	16	8	43	3	...	166	
Specials	32	30	20	9	6	8	30	1	1	137	
	121	69	70	21	41	29	140	6	1		498
Vocational	48	131	25	55	3	2	53	22	...		339
Total	169	200	95	76	44	31	193	28	1		837

Summer School 1917—Males..... 45
 Females 151 196

Correspondence Department & Extension Classes—Males.. 201
 Females 1046 1247

Less names repeated 2280
 66

Net Total.....2214

FARMERS' CONVENTIONS AND HOUSEKEEPERS'
 CONFERENCES

Conventions:

Logan 291
 Richfield 81
 Cedar City 209

Housekeepers' Conferences:

Logan 107
 Richfield 52
 Cedar City 220

Net Total 960

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Illustrated descriptive circulars dealing with the work of the various Schools—Agriculture, Agricultural Engineering, Home Economics, Commerce, Mechanic Arts, General Science and Summer School—and with Student Activities, are published. WRITE FOR COPIES.



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